AUDITING PROCEDURE

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An Outline of Auditing As a Profession

Public accounting, or, as it is generally known, public auditing, is new among the professions, but since its beginning it has had a very rapid development as a profession.

Public auditing on a large scale began with the development of large industrial and commercial organizations following the industrial revolution. When business units became large and elaborate, proprietors and managers welcomed the assistance of competent disinterested advisers skilled in the analysis and interpretation of financial transactions and accounts. Banks and credit men soon recognized the value of statements prepared or certified by these experts and insisted on having them. Thus the new profession made rapid progress by the service it rendered to business.

The organization of the auditing profession was the natural consequence. Leading auditors in the United States secured the enactment of C.P.A. laws in each state providing for the certification by the state of those most competent in the profession. Rigid examinations were set for this purpose, which, in most states, are offered semi-annually. In Canada and England definite standards and examinations were prescribed by incorporated accounting societies such as the Chartered Accountants' Association and the General Accountants' Association.

The first great impulse in the growth of public accounting in the United States after the enactment of the state C.P.A. laws came with Federal income and excess profits taxation. The intricate accounting problems involved in the administration of these laws required the direct employment by the Government of many skilled auditors and accountants, thus opening a new field of activity. The necessity of determining accurate profits for tax purposes also caused businessmen to make use of the services of public auditors more extensively. In many instances

they effected substantial tax savings for their clients. So great was the emphasis placed on accounting that the accounting profession was practically reorganized, including assistance with Federal income tax problems along with other accounting services.

Greater educational facilities were provided with the development of the profession. Standards of professional conduct were promoted by the American Institute of Accountants, the American Society of Certified Public Accountants, and various state societies. The profession was therefore well organized to meet the impetus occasioned by recent legislation.

The laws recently enacted by Congress go even further than the income and excess profits laws in their demands on the accounting profession and especially on the public auditor. The Federal Securities Act, the Securities Exchange Act, the Robinson-Patman Act, the social-security, old-age, and unemployment insurance legislation bring innumerable accounting problems which must be solved largely by the public accountant and auditor. In this new era of business and social responsibility public demands focus on the public accountant and auditor.

These same standards of efficiency are demanded of the modern accountant, auditor, or comptroller in business. This treatise will be found equally valuable to the business and the public accountant.

AUDITING PROCEDURE

Chapter I

AUDITING AND PUBLIC ACCOUNTING

Nature of auditing—Purpose of an audit—Its greatest worth—Auditor's qualifications—Value of an audit.

Auditing, unlike bookkeeping, is an analytical process. It not only implies a thorough knowledge of accounts and the principles underlying their construction, but demands the power to analyze properly the details of business transactions and to synthesize correctly the operations of a business. An auditor's report, therefore, must not be merely a logical grouping of accounts; it must reveal fully the value of certain forces in accomplishing desired results and their effect on the financial status of a business organization.

Some practitioners wrongly believe that the principal end of an audit is to verify the arithmetical accuracy of the books, to make a statement that the accounts were examined and found correct, and to add a balance sheet and a profit and loss statement. However, this conception is too limited. The auditor must be not only an accountant who understands thoroughly the construction of the accounts examined; he must to a very large degree be a business analyst. He must reveal to the business man the effect of business policies and the factors which contribute to greater cohesion and efficiency in administration, office routine, factory production, or marketing. It is the business-building, constructive side of auditing that is of greatest worth. The processes involved are merely means toward this constructive end.

Qualifications of an Auditor. To supply the requisite business education required of a public accountant is not the object of this book. It is limited to the actual procedure of making an audit. We have in mind, however,

to impress upon the prospective public accountant and some of the present practitioners the need for a general business education, so that auditors' reports may be real and valuable sources of information and analyses of operations rather than stereotyped certificates. Our object is to encourage the prospective public accountant and auditor to fit himself to be more than a mere checker of figures—in fact, to make himself a business adviser.

If one hopes to become a really successful public accountant, he must study more than accountancy; he must meet requirements other than those demanded in the C. P. A. examinations. He should be a student of economics and industrial conditions; he should know public finance and taxation; and he should be somewhat familiar with market reports, business tendencies, and the politico-economic legislation of his country. Business administration and organization, corporation finance, banking, business law, office systems and management, cost accounting and efficiency work—all these form a part of the successful public accountant's fund of knowledge. He must have, in addition to all these, personality and tact.

The Value of an Audit. The value of audits and examinations is limited by their scope and nature. Normally a complete audit should be the most valuable. A limited audit or investigation can have only limited value, although many useful suggestions for improvement in accounting procedure may develop from such special examinations. For example, an examination to determine the extent of a defalcation may carry with it recommendations which may make a recurrence of such an evil practically impossible.

Outside of any special considerations, a regular audit is valuable in that it affords an external, impartial verification of business operations and the financial condition. It assures the management of the ability of an accounting department and of the reliability of its statements.

It has value for credit purposes either with the banker or with the creditor, and it is almost a necessity for the effective sale of securities. If the audit be truly constructive, it should reveal the important, vital tendencies that make for progress and profit and the forces that engender loss. It should show up the weak points in organization and the errors in accounting principle, and it should be instrumental, as far as possible, in developing the accounting procedure of a business organization. Through constructive suggestions it should actually lead to the introduction of office economies and to greater efficiency in office and general business administration.

It may be that we are somewhat sanguine in our valuation of proper audits, but it is encouraging to note that among high-class practitioners, an equally high value is set upon the profession of auditing.

Test Yourself on Essential Points

1. What is the essential difference between auditing and accounting?

2. What are some of the essentials of training and education to qualify an auditor for public work?

3. Outline some of the real values to be derived from an audit.

Chapter II

CLASSES OF AUDITS AND EXAMINATIONS

Balance sheet audit—Complete audit—Continuous audit—Special examinations and investigations.

Audits and examinations are usually classified according to their scope and character, as follows:

1. Balance sheet audits.
2. Complete audits.
3. Continuous audits.
4. Special examinations.

Balance Sheet Audits. A balance sheet audit is confined entirely to the verification of assets and liabilities or to the trial balance accounts after closing. Every asset and liability must be verified, but yet a balance sheet audit cannot result in an unqualified certificate as to financial position. Though the Surplus Account in a balance sheet may be thoroughly analyzed and some of its component elements thoroughly tested, a true balance sheet audit precludes the detailed examination of the operations that create surplus. The auditor's certificate, following a balance sheet audit, may therefore state that the assets and liabilities as shown by the books or by the auditor's statement are correct and that they have been fully verified; but a certain qualification must be made as to the Surplus Account forming part of the net worth of the business. That qualification need not impair the value of the certificate, but it should clearly indicate that no detailed examination of operations was included in the auditor's work. Any intelligent reader having confidence in the auditor certifying to a balance sheet will readily assent to the conclusion that, if the assets and liabilities are correctly stated, the net worth, including capital invested or capital stock (both subject to complete verification) and surplus, must also be correct, at least as a totality.

Complete Audits. The most satisfactory audit, at least from the public accountant's viewpoint, is the complete, or detailed, audit. This form of audit embraces the verification not only of assets and liabilities, but also of all income and expenditure during a period; therefore, no compunctions as to conclusions need be felt by the auditor, provided, of course, that he has done his work faithfully and accurately. There is greater value in a complete audit than in a partial one, because the effects of results from operation can be very clearly associated with changes in financial position. An analysis of operations is valuable, moreover, if the auditor is of that progressive type who believes that constructive suggestions as to operating or accounting procedure have a proper place in an auditor's report.

Continuous Audits. A continuous audit may be either limited or complete in its scope and would therefore be confined to the purposes in view. But the essential feature of a continuous audit is its periodicity; it may be monthly, quarterly, or semiannually. The auditor supervises the work at intervals during a period and makes reports of progress instead of the financial and operating reports usually made at the end of a period under review. The continuous audit has the advantage of keeping the accounting staff of the concern audited on the alert, and reflects to the management very clearly, if properly done, the current tendencies of business operations. Practically all up-to-date business enterprises are equipped with accounting systems that show monthly the results from operation. Progressive business men are no longer content to wait complacently until the end of a fiscal period for a statement of profit and loss. The need for changes in pricing and the varying costs of production and of raw materials make monthly operating statements a necessity. To be sure that all these variations are properly included in the accounts, gives the continuous audit a very specific value.

Special Examinations. Special examinations are absolutely limited by their content and have in view merely the determination of some specific point. Such investigations may arise out of litigation; from suspected fraud or defalcation; from partnership disputes; from fire-loss adjustments; from the interests of patent holders in royalties; from the demands of creditors; from income tax legislation; or from a host of special interests either within a business organization or outside.

Classification of Accounting Services. The American Society of Certified Public Accountants, now merged with the American Institute of Accountants, appointed a committee to investigate and recommend an adequate classification of accounting services. In its official report, this committee recommended the following general classifications:

1. Complete or detailed audits.
2. General or balance sheet audits.
3. Miscellaneous audits relating to particular accounts such as
    (a) Cash.
    (b) Securities.
    (c) Pay roll.
    (d) Manufacturing costs.
4. General examinations.
5. Examinations of financial condition.
6. Investigations.
7. Preparation of statements from books without verification.

The audit of balance sheet accounts will be taken up in the order in which they are ordinarily arranged in the balance sheet. The first balance sheet item is cash, which is the most current of all assets.

Chapter III

AUDIT OF BALANCE SHEET ACCOUNTS

Cash

Forms of cash funds—Counting cash on hand—Cash in the bank—Reconciling the bank account—Verification of outstanding checks and other items—Reconciliation of several bank accounts—Reconciliation after the close of the period—Petty cash funds—Verifying cash book footings—Verifying cash receipts—Verifying cash disbursements—Other considerations—Recommending better methods of cash control.

The nature and scope of the audit of cash will vary under different conditions and circumstances, and the auditor's first concern is to establish an audit program to meet the requirements of the individual situation. In each case he will have to acquaint himself with the sources of cash funds, the internal check and control followed, and the methods of handling and accounting for cash. A consideration of these matters is always essential to establishing the correctness and validity of the cash accounts.

To verification of cash involves two major processes. First, to ascertain by inspection, count, and confirmation that the amounts of cash in various places are in agreement with the balances in the cash accounts on the last day of the audit period; and second, to make such verification and examination of the records as is necessary to determine whether any discrepancies exist between the cash the business has and the amount it should have on that date.

While much of the responsibility for safeguarding the cash resources of the business must of necessity be assumed by management, the auditor is expected to use the utmost care in his examination.

Forms of Cash Funds. The usual forms of cash funds which the auditor will have to verify are cash on deposit

with banks, undeposited currency and checks, and cash in a variety of special funds, such as petty cash, working funds, unclaimed payments, etc.

Most businesses today follow the practice of depositing daily all cash received and making all disbursements of major items by check. This limits the cash on hand at any given time to general cash items received too late to be deposited, and cash in special funds.

This practice also has the advantage of providing two sources of record of cash receipts and disbursements—the records of the bank and the records of the business. While this is sound business practice and aids the auditor in his audit, it should not be considered an absolute safeguard against misappropriation.

Where cash receipts are not deposited regularly, the opportunity for misappropriation of cash is greatly enhanced, and the audit of cash in such situations is more difficult.

Counting Cash on Hand. Because the cash on hand is still in the possession and control of the employees of the business the auditor's first step is to inspect and count the cash on hand, including that in petty cash and other funds, and to compare the amount with the recorded cash balance.

The count of cash should ordinarily be made together with the inspection and count of stocks, bonds, notes receivable, and any other items which might be readily converted into cash and the proceeds used to cover a cash shortage.

In counting the cash on hand, the auditor should make sure that all checks which make up part of the cash balance are recorded in the cash book prior to the close of the period. He should also make such investigation as in his judgment is necessary to determine the validity of such checks. If checks have been cashed for employees and outsiders, he should obtain evidence that these have been

deposited and cleared through the banks on which drawn, before he completes his audit. Advances to employees should receive close scrutiny, both for authorization and amount.

The cash count is generally most effective if made without advance notice to those entrusted with the company's funds. If such persons learn of the time the count is to be made, they are given an opportunity of covering temporarily any existing shortage. Whenever possible, the auditor should insist that the employee in charge of the cash fund is present when the count is made, so that no dispute can arise as to the amount of cash on hand.

In addition to the count of cash, the auditor should make a permanent record of the composition of the cash on hand with reference to bills, coins, checks, and other items. For this purpose a schedule of cash count should be prepared for each fund or source of cash on hand, classifying in detail the various items and showing the day and the time when the count was made.

Cash in the Bank. The verification of cash in the bank involves securing directly from all banks in which the business has money a certificate stating the balance on the closing date and then reconciling this balance with the balance in the cash book.

The auditor does not accept as evidence of cash in the bank the amount shown on the last monthly bank statement, unless he is able to get it directly from the bank, because experience shows that such statements can be altered.

The best auditing evidence is that secured from disinterested outside sources, and with an item as important as cash it is always advisable to use such evidence.

In addition to the bank balance, the auditor requests the bank to tell him on the confirmation form to what extent the business is obligated to the bank as maker, endorser, or guarantor of loans, notes, or other contracts. When directing the bank to return the confirmation, the

auditor should specify that it is to be sent to him personally or to some member of his staff

Reconciling the Bank Account. The balance of cash in the bank as shown on the books at the end of the period will seldom be the same as the balance supplied in the bank certificate; consequently, a reconciliation of the two must be made. The form and content of a typical bank reconciliation is shown below.

First National Bank
Chicago, Ill.

Reconciliation of Bank Account
December 31, 19—

Balance per bank		$12,000.00
Add: Deposit of December 31 not credited by the bank on that date		405.00
Total		$12,405.00
Deduct: Checks outstanding at December 31		
No. 1486	$137.50	
No. 1589	89.00	
No. 1590	74.00	
No. 1639	45.00	
No. 1678	67.00	
No. 1689	58.00	
No. 1701	10.00	
No. 1705	15.00	
No. 1708	20.00	515.50
Bank's balance as adjusted		$11,889.50
Balance per cash book	$11,894.50	
Less collection and service charges on bank statement, but not entered in cash book	5.00	
Cash book balance as adjusted		$11,889.50

In preparing the bank reconciliation statement, the auditor should compare the cancelled checks returned by the bank item by item, for at least the last month of the period under review, with the entries of checks drawn in

the cash disbursements book or check register. When necessary, the comparison should extend beyond the last month of the period for such time as to cover all recently drawn outstanding checks.

The extent of the verification of cancelled checks, as outlined above, is ordinarily sufficient in the case of a balance sheet audit of a business which has a well-developed system of internal check and control. Under different circumstances, the examination may have to be more inclusive.

Verification of Outstanding Checks and Other Items. The mere agreement between the bank balance and the cash book balance is not in itself an absolute proof of the correctness of the bank account on the books. The auditor should satisfy himself that outstanding checks and other items in the reconciliation represent valid transactions. He should ascertain that the receipts shown in the cash book as deposited on the last day of the period, but not credited by the bank on that day, have actually been deposited as claimed. He should also recognize that comparing cancelled checks with the entries on the books will not disclose outstanding checks which have not been entered. He should examine the cancelled checks and endorsement thereon of the subsequent month and note any cancelled checks that may not have been entered in the cash records.

In the case of a first audit by the firm, it is advisable also to trace to the cash book the checks outstanding at the beginning of the period under audit. Those outstanding for a considerable period of time should receive special consideration. If any suspicion exists, the payee should be asked to pass on the validity of the check and to tell if possible why it has not been cashed.

Cancelled checks made payable to bearer or cash should receive close scrutiny as to endorsement and purpose for which drawn.

Reconciliation of Several Bank Accounts. Where more than one bank account exists, a separate reconciliation should be made for each. In such cases it is important for the auditor to determine that no check drawn by the company was deposited in one bank without being deducted before the close of the period from the bank account on which the check was drawn.

To illustrate: Assume that company A has two bank accounts designated X and Y. On December 31 of the fiscal year, a shortage of $1,000.00 exists in the X bank account. To cover the shortage, the bookkeeper draws a check of $1,000.00 on the Y bank and enters it as a deposit in the X bank. The check drawn on the Y bank is not entered as a disbursement until some time in January. Thus the shortage in the X bank account is concealed by funds transferred from the Y bank and an overstatement of the Y bank account.

The auditor may have to extend his examination of bank transfers to original deposit slips or certified copies of them to assure himself that this situation does or does not exist.

Reconciliation After the Close of the Period. It frequently happens that an audit is started some time after the close of the year. Under these conditions, it is obvious that the auditor could not be on hand to count the cash on the balance sheet date. If a count of cash is made when the auditor arrives on the job and the bank reconciliation is made only to the close of the year, there is an intervening period where a shortage in cash on hand could be covered up by drawing a check for currency against the bank account after the close of the year.

Especially in cases where the receipts of a business are derived from both currency and checks, it is necessary to reconcile the bank account at the date of the cash count as well as at the balance sheet date. Although cash on hand may be correct as of the date of the auditor's count, it does not follow that the total cash, including the

cash in the bank, is also correct. Only by reconciling the bank account at the date of the cash count can the auditor obtain assurance that the total cash is correct. This is sometimes referred to as the "second bank reconciliation."

The footings of both sides of the cash book from the close of the year to the date of the count should be completely verified or tested according to the requirements of the particular case.

Petty Cash Funds. The most effective accounting for the ordinary petty cash fund may be obtained through what is called the "imprest system." Under this procedure, a fixed amount is placed in a petty cash fund; and when the amount is nearly depleted, a check against the general bank account is drawn to cover the expenditures from the fund and bring it back to its stated amount.

After counting and listing the content of the fund and comparing the total with the balance in the petty cash account, the auditor should make sure that the fund was cleared of all disbursements prior to the date of the balance sheet.

Any questionable items in the fund, such as I.O.U.'s, employees' checks, unauthorized advances, etc., should be noted on the schedule of petty cash count and confirmed as to validity and authorization.

In verifying the petty cash expenditures, the auditor should consider the size of the fund and the nature of the control exercised over petty cash expenditures. Where this control is loose, the petty cash fund offers a source of continuous misappropriation of small amounts which may come to a sizable total.

The common forms of misappropriation from the fund against which the auditor should be on guard are as follows:

1. Withdrawing cash and substituting false vouchers.
2. Reporting authorized expense items, which were paid out of general cash, as paid from petty cash.

3. Obtaining old vouchers which represented valid expenditures and changing dates on them as a basis of withdrawing cash from the fund.
4. False footing of voucher totals.
5. Reporting greater amounts of expenditures than actually made.

Where any doubt arises as to validity of expenditures from the petty cash fund, the auditor may present a list of payments to some responsible official of the company for approval.

Where the imprest fund is not used, the auditor has to verify the balance in the fund by taking a total of the checks, or cash transferred to the petty cash fund, and deducting from this amount the total of the petty cash disbursements.

Verifying Cash Book Footings. The count of cash and the bank reconciliation must be supplemented with further verification of the records before the auditor can be reasonably certain of the results of his work. One of the sources for manipulating the records is the falsification of the totals of the cash receipts and disbursements book.

By understating the total receipts or overstating the total of the disbursements, the bank account can be brought into agreement with the bank balance as shown on the bank statement, even though serious discrepancies in cash might exist.

Proving the footings of the cash receipts and disbursements records is, therefore, a necessary procedure to the audit of the cash account. Verification or test of the footings should not be restricted to the bank columns, but should include the distribution columns as well.

Special scrutiny and verification should be made of the discount columns in the cash books, because it is possible to misstate the discount to cover up abstractions from cash.

Verifying Cash Receipts. In ascertaining that all cash that should have been received by the business is in its

possession, the auditor should not restrict his examination to the entries on the books. Some receipts may not be entered on the books, and it is essential, therefore, that the auditor bear this in mind in the course of his examination. Cash received from the sale of scrap, refunds of insurance premiums and freight overcharges, interest, rent payments and recoveries on accounts previously charged off may not be subject to as strict internal control as regular receipts from sales, and it offers opportunities for misappropriation.

Where the business deposits all its receipts in a bank, such receipts should be compared with the deposits shown in the bank statement. The bank statement or pass book ordinarily shows the total deposits for each day a deposit is made, without showing the composition of such deposits. In order to make sure that the items recorded in the cash book are identical with the ones deposited, the auditor may find it advisable to examine a number of deposit slips and compare the items listed with the entries in the cash book. If there is any doubt as to the validity of the deposit slips, he should obtain these directly from the bank.

Where the business does not deposit all its cash receipts and makes payments out of its cash funds, it will be necessary to account for all receipts that have been deposited by checking them with the deposits per bank statement and also for undeposited receipts. After checking the receipts deposited, the balance of the receipts must be accounted for through disbursements and cash on hand.

In this case, the cash book footings of both receipts and disbursements should ordinarily be verified for the entire period, cancelled checks examined, and proper authorization of disbursements secured and inspected for currency disbursements

Verifying Cash Disbursements. In connection with reconciling the bank account, we indicated that cancelled

checks should be compared with the cash disbursements entries to determine the outstanding checks. In connection with this procedure, the auditor should in addition compare the name of the payee on the check with the recorded name in the cash book and examine the endorsement to see that the check was endorsed by the payee. While assurance that the endorsement is genuine is difficult to determine, the auditor should be on guard for suspicious situations.

The propriety of the disbursements should also be considered, and it is generally necessary to make some verification of the invoices and vouchers for which the checks were issued. Duplicate payment of bills is not uncommon, and neither are unauthorized disbursements. Check numbers should be watched to see that all checks are accounted for, and checks spoiled in the process of preparation should be furnished to the auditor.

Some consideration should always be given to the accounts charged for disbursements. The cash disbursements book is frequently a source of classification of disbursements; consequently, the auditor should make sure that the disbursements have been entered under the proper classification before checking the postings to the general ledger.

Other Considerations. In addition to the foregoing, there are a number of other matters that have to be considered in connection with the audit of cash.

If any of the cash funds are subject to withdrawal restriction of any kind, the nature of such restriction should be indicated on the balance sheet. Businesses with branches in foreign countries often find that cash funds at the branches cannot be transferred to the home office because of exchange restrictions. Deposits in closed banks should be verified through correspondence with the receiver. Such deposits should not be classified as current assets, as they are not available for the payment of

current bills. The potential realization should be estimated and a reserve provided to cover the possible loss.

Postdated checks received from customers should not be considered as part of cash balance. Such items should be entered and deposited on the due date, and in the interim considered as notes receivable. If the business has only one bank account and that is overdrawn, the overdraft must be classified on the balance sheet as a current liability. The same procedure is in accordance with sound accounting principles even when the client has a balance to his credit in another bank greater than the overdraft. Some authorities, however, recognize the practice of deducting the overdraft from the balance in the other bank.

Unclaimed wages and other disbursements held for others may be used to cover shortages in the cash funds. If such items are held for more than a month, they should ordinarily be brought back into the bank account and an appropriate liability set up. The auditor should make inquiry regarding these items, their amounts, and the reason why they are being held.

Recommending Better Methods of Cash Control. An auditor may be able in a number of ways to give constructive advice in connection with methods of handling cash and internal check and control as followed. In his examination of the cash funds, he may find definite weaknesses in the company's methods, and either personally, or in his report, he may tactfully bring such matters to the attention of the management.

Test Yourself on Essential Points

1. Outline in the case of a balance sheet audit a program of instructions for verification of cash and bank balances. (From American Institute Examination.)

2. How would you prove the cash-book footings without actually adding the columns on each page?

Chapter IV

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Receivables

Value of notes receivable as an asset—Method of verifying notes on hand and discounted—Renewed notes—Trade acceptances receivable—Verification of accounts receivable—Providing reserve for bad debts—Proving accounts receivable—Volume of receivables related to sales terms—Methods of verifying miscellaneous receivables.

Notes Receivable. The value of a note receivable as an asset depends entirely upon the nature of the note and the financial strength of the maker. If a note is given in settlement of an account, the note, although having a definite legal status, is no better than the account and may indicate financial weakness on the part of the maker. If the note is a secured one, it is a much better asset than an account receivable. Thus, notes given regularly by farmers or groups of farmers for the purchase of large agricultural implements and machinery are not only, as a rule, signed by property owners to begin with, but they are secured by the implement sold (the title to which does not pass until the note is fully paid), and very often by an additional farm mortgage. Practically all the receivables of an agricultural implement house or manufacturer are in the form of notes.

Procedure in Verification. In auditing the Notes Receivable Account, the first step is to call for the notes themselves. The account should include only notes not yet due. These may include either originals or renewed notes; the latter must be thoroughly scrutinized, and if the renewal indicates a state of weakness on the part of the maker, proper reserves should be provided or recommended. If the notes are not too numerous, they should be listed. The list should indicate the date, the maker's name, how obtained, the amount, the due date, whether original or renewal, the rate of interest—if any, and the amount of accrued interest. The makers should also be

circularized by the auditor in order to establish the genuineness of each instrument. Where the notes are too numerous for proof by circularization, the validity of the notes should be tested. Fictitious notes might easily be substituted for accounts already paid, to cover up, at least temporarily, a defalcation. In offices where the cashier's accounts are daily checked against independent mail receipts and where the accounts and notes receivable records are kept separate from the cashier's department, the chances for manipulation are greatly minimized, although collusion between departments might still exist. In other words, every possible means should be employed to fix the genuineness of the notes and to secure satisfaction of their being regular.

Notes of employes or officers should be separately listed and their nature fully determined. They should also be passed upon by someone in authority, and they should be shown separately as employes' and officers' notes in the auditor's balance sheet statement. They should also be commented on in the text of the auditor's report.

Where notes are taken in large numbers, it will not be possible either to circularize the makers or to inspect all the notes themselves. Total test proofs of values tied up in this class of receivables may be made, however, through independent sales records and cash records, and in some cases genuineness may be established through partial circularization. All notes actually in the office should be inspected, and though lists of these may not be prepared, all missing notes should be recorded. The missing notes can be readily established either from the notes-receivable register or from other records that give full details of the notes. These records are, as a rule, very complete in agricultural-implement offices. A trial balance of these subsidiary notes receivable records must, of course, be taken and compared with the controlling account.

Notes Held by Others for Collection. The notes listed as missing may be found at the branch offices of the concern, or they may be out for collection with some bank, or they may have been already paid and the cash may therefore be in transit. In such cases the branch must be asked for a certificate covering the notes in its possession and the bank should be asked to give the same. Very often cash in payment for notes out will be in transit between the collecting agency and the company whose books are being audited, with the result that the bank will not report certain notes on hand.

In writing to a bank, the auditor should request a detailed verification of notes held, and he can facilitate matters by listing the notes purported to be held by the bank from which the certificate is requested. In that case, if the bank has forwarded collections on some of the notes, it can indicate the date of forwarding. This will enable the auditor to check the receipt of cash which was in transit when the request for certificate was mailed; he must be very certain that the cash received be recorded after the date on which the notes receivable were balanced.

Renewals. Though they should be listed separately, renewed notes may not always be risky. In fact, it should be assumed that, where a good credit department exists, renewals are granted only after very thorough investigation of credit standing. Not only should past-due notes be listed separately and shown separately in a balance sheet, but proper reserves should be created to meet possible losses therefrom. The past-due notes should be so scheduled as to show under various groups how long past due they are, as a guide for proposing the proper amount of reserve. Some of the notes may be unpaid because of disputes, and it is, therefore, suggested that the makers be circularized by the auditor so that the exact status may be determined in each case.

Notes Receivable Discounted. Probably the most desirable method of showing the contingent liability for notes receivable discounted is to carry an account for them on the general ledger. When a note is discounted by the bank, instead of crediting Notes Receivable through the cash book, a Notes Receivable Discounted Account should be credited. In stating the notes receivable on the balance sheet the following form of expression should be used:

Notes Receivable	$.......
Deduct—Notes discounted	....
Net amount not discounted	$.......

On the other hand, if the auditor prefers to show only undiscounted notes as an asset, he may insert the contingent liability as a footnote on the liability side of the balance sheet. No matter what method be employed, it seems very desirable to credit the proceeds from discounted notes to a Notes Receivable Discounted Account, thereby showing plainly at all times the liability for a not infrequent contingency. When the bank advises payment, a journal entry will be made debiting Notes Receivable Discounted and crediting Notes Receivable. If the note is not paid, the bank must be repaid or it will charge the depositor's account, and the entry will be a debit to Notes Receivable Discounted and a credit to Cash. The delinquent debtor's note will then again be part of the regular Notes Receivable Account. If no renewal is provided for, the protested note and the protest fees, etc., should be charged to the maker of the notes and Notes Receivable credited. The processes just outlined will not only keep constantly before a manager the contingent liability for notes discounted, but will also assure him that his regular Notes Receivable Account is composed of unmatured notes.

Trade Acceptances Receivable. A trade acceptance arises in connection with a domestic sale of goods. The seller

draws a draft on the buyer who upon acceptance writes across the face "Accepted (date), payable at (place)," with his signature. The acceptance then constitutes a promise to pay the amount of the draft at its maturity. It is practically the same as a promissory note. Trade acceptances, however, are generally regarded more favorably than notes for rediscounting purposes because they are based upon actual transactions and bear the names of the acceptor and the drawer. The procedure for verification is the same as for notes receivable.

Accounts Receivable. The trial balance of the accounts receivable ledger should be checked with the balances shown in the individual accounts in the ledger. The total sum of these balances should, of course, agree with the general ledger controlling account.

A thorough scrutiny of the accounts-receivable ledger should be made and a schedule prepared of all accounts past due. The past-due accounts may be grouped as follows:

30 to 60 days past due.
60 to 90 days past due.
90 days to 6 months past due.
6 months to one year past due.
Over one year past due.

Not only is a schedule of this kind of value as an aid in constructing an adequate reserve for bad and doubtful accounts, but also in a way it indicates the efficiency of the credit and collection department. In analyzing an account to fit the schedule proposed, one will often find that some of the balances represent old charges, whereas more recent charges have been promptly paid. The chances are, in such case, that the old items are in dispute, that goods returned have not been credited, that they represent duplicate charges, or that allowances may still be due the customers. Accounts of this nature should always be circularized by sending a statement

with a request for verification or explanation direct to the auditor.

Reserve for Bad Debts. The accounts over a year past due should be reserved for in full. The auditor should recommend that these accounts be transferred into a suspense ledger or marked for special handling. Some reserve should also be provided for accounts less than a year past due. As a rule, the total amount to be reserved may be fixed on a percentage of losses to sales basis. The past experiences of the company audited must be the basis of fixing this percentage. The auditor should recommend that accounts reported as uncollectible be written off against the reserve. It is recommended that accounts so written off be thoroughly investigated and that their uncollectibility be vouched for by someone in authority. Much petty thievery has been committed in connection with accounts written off that were subsequently collected secretly by some enterprising, unscrupulous bookkeeper. In almost every instance, after all other methods have failed, bad and doubtful accounts should be reduced to judgments against the debtors, and levy should be had as quickly as the laws permit.

The auditor should report separately sales to debtors on dates subsequent to past-due charges. Such a condition is a decided indictment of a credit department's efficiency. All old balances should be liquidated before additional sales are made, unless the sales be made on a basis of cash in advance. The auditor can, therefore, render a helpful service to the management by giving particular attention to this point in his analysis. Of course, it is not the auditor's function to dictate sales or credit practices; nevertheless, his report should be designed to bring out facts like this which give a cue for managerial action.

Slow accounts in which the monthly balances are constantly increasing, are as a rule an indication of consid-

erable financial weakness, and these accounts should be called to the attention of someone "higher up." Accounts in which remittances for round amounts rather than for specific charges are indicated, should be carefully examined and circularized. Journal credits to Accounts Receivable should never be passed without close investigation, and the credits should bear proper authorizations.

Proving Accounts Receivable. The Accounts Receivable as a total should be proved through the sales records and cash books. This may be done by preparing the following schedule:

Accounts Receivable at beginning of period	$........
Add—Charge Sales for period (as per sales records) . .	....
	$........
Deduct—Cash received (as per cash book), discounts, allowances, and returned goods for period (as per allowance records, etc.)	....
Accounts Receivable at end of period	$........

The total of allowances, discounts, and returned goods should be compared on a percentage to sales basis with the same deductions in prior years in order to determine their normality and, even after that, all deductions of this nature should be thoroughly examined, or tested, and assurances obtained that they were regular and were properly authorized.

Ratio of Accounts Receivable to Sales. It is apparent that, if commodities are sold according to certain terms of payments, the volume of receivables outstanding at any time should be related to the terms of sales. For example, if it is assumed that all goods are being sold on terms of 2 per cent cash, net 30 days, the accounts receivable outstanding which are entirely good should not be much in excess of one-twelfth of the annual sales, unless, perchance, the business is of a decided seasonal nature. If the latter condition prevails, then the accounts

should fluctuate with the seasonal condition and should represent a normal fraction (based upon sales terms) of the seasonal sales.

After the old, bad, and admittedly slow accounts are eliminated from consideration, it might be safe to conclude that the volume of accounts receivable should be in that ratio to total annual or seasonal sales which the sales terms bear to said sales. Therefore, a concern selling strictly on a 60-day-settlement basis without a discount privilege, should show receivables equal to approximately one-sixth of the annual sales, provided the business is not seasonal. If this ratio does not exist after the eliminations above referred to are considered, it may be quite safely assumed that either the collection department has been negligent or that general business conditions are not normal. At any rate the remedy is apparent in either case. If the collection department is at fault, the recommendations are obvious. If the business conditions are poor, then greater caution must be exercised by the credit department.

Officers' and Employes' Accounts. The accounts of officers and employes should not be kept in the accounts receivable ledger unless they are charges for regular product sold. If they represent advances or charges of another kind, they should be in the general ledger or, if too numerous, in a separate ledger. The auditor should discourage accounts of this nature, for a company has no obligation to advance moneys to officers. The funds of any organization should be used in fostering the purposes underlying it and not in making loans to officers and employes. It has happened that officers of corporations have withdrawn large sums of money which were charged to their accounts but which they were subsequently unable to repay; such practices are clear cases of misappropriation of funds, and yet they are not uncommon and often go on without arousing much criticism until a wide-awake stockholder protests.

Whenever accounts of this nature are found in the accounts receivable ledger, they must be scheduled separately by the auditor, their nature and age determined, and proper approval secured for them. They should be separately stated in the auditor's balance sheet and fully explained in his report.

Consignment Accounts. In some businesses the auditor will find that goods shipped on consignment are treated as an ordinary sale. Upon discovering that the company ships some of its goods on consignment, the auditor should examine the customers' accounts carefully to determine if the consignments are carried in the accounts receivable. Such consignments should be eliminated from the accounts receivable and the sales and set up as an addition to the inventory at the proper cost valuation.

Installment Accounts. In a trading business the auditor will frequently find that goods are sold on an installment basis. In some installment sales title passes to the buyer only after the last payment is made, while in others the title passes with the receipt of the initial payment or a certain number of payments, and a chattel mortgage is taken for the balance. Although installment accounts should be examined and verified in practically the same way as customers' accounts, the auditor must determine from the terms of the contract whether the seller has the right of repossession in case the buyer defaults in his payments and, if so, whether in case of past-due accounts repossession has taken place or whether the dates of payments have been extended. If goods have been repossessed the auditor must see that both the customers' accounts and the inventory of repossessed goods have been properly adjusted.

Stock Subscriptions Receivable. In the case of a new company, there may be found subscriptions to the stock issue still carried as receivables. It is now a common practice for a company to sell its capital stock to em-

ployes on a partial-payment plan. Stock sold to employes is usually held by the company until final payment. The accounts should be checked to see that the terms of the sale have been complied with; that the payments have been deducted regularly from the salaries of the employes; and that any calls demanded by the directors have been met. The verification of stock subscriptions is subject to an inspection of the minutes of the board of directors and stockholders meetings.

Claims. Claims against railroad and express companies are frequently set up in special claim accounts. The validity of each claim must be verified by examining the correspondence and conferring with the official filing the claim. The claim may not be allowed in full. It may be conservative to provide a reserve for any claims that appear doubtful or uncertain as to the actual amount that will be collected.

Deposits on Contracts. Where deposits on contracts are made, subject to refund in case certain conditions in the contract are not carried out, the amounts deposited should be carried as a receivable. The condition under which deposits are refundable should be verified.

Accrued Interest Receivable. In the audit of notes and accounts receivable, and investments such as bonds and mortgages, the auditor must obtain therefrom all data necessary for computing the amount of interest accrued and not due. Accrued interest is considered a current asset under the receivable section of the balance sheet.

American Institute of Accountants Ruling. An important opinion relating to the audit of accounts receivable was released by the special committee of the American Institute of Accountants in the treatise entitled *Extensions of Audit Procedure.* This report reads in part:

> (a) That hereafter, in cases where the aggregate amount of notes and accounts receivable represents a significant proportion of the current assets or of the total assets of a concern, confirmation of notes and accounts receivable by direct communication

with the debtors shall be regarded as normal audit procedure in the examination of the accounts of a concern whose financial statements are accompanied by an independent certified public accountant's report; and that the method, extent, and time of obtaining such confirmations in each engagement, and whether of all receivables or a part thereof, be determined by the independent certified public accountant as in other phases of procedure requiring the exercise of his judgment; and

(b) That hereafter, where the independent certified public accountant, for any reason, has not made such confirmation, he shall make suitable explanation or exception in his report.

Test Yourself on Essential Points

1. Explain why an auditor should not be content with merely taking off a trial balance of the customers' ledger and reconciling the aggregate balances with the balance in the control account. To what other sources should he go to help him determine the asset value of customers' accounts?

2. Outline your method of verifying the accuracy of accounts receivable from trade customers in a balance sheet audit. (From C.P.A. Examination.)

3. Do you consider the periodizing of the outstanding accounts-receivable balances as the best method of determining the adequacy of the reserve for bad debts? Give reasons. (From American Institute Examination.)

4. On February 15, 1938, you are called upon to audit the books of a concern for the calendar year 1937. State in detail how you will verify as of December 31 the balance sheet item-notes receivable. (From C.P.A. Examination.)

5. How should Notes Receivable indorsed and discounted at the bank be treated on the balance sheet?

6. How would you verify the correctness of the value of notes receivable discounted?

7. Under what circumstances is it desirable for the auditor to circularize the customers' accounts receivable?

8. You find on checking the customers' ledger a number of accounts with credit balances. How should amounts of this character be treated on the balance sheet?

9. What items are listed sometimes as accounts receivable that do not properly belong there? How would you present them on the balance sheet?

10. In the verification of notes receivable, you find a number of notes not in file for inspection. What means would you employ to verify their existence and value? In case some of them have been pledged as collateral to secure a loan, how would such notes be presented on the balance sheet?

Chapter V

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

INVENTORIES

Rules for checking and verifying inventories—Check on inventories when a cut-off occurs—Valuation Cost records to show cost values—Inventories taken by the auditor—Providing inventories—Applying the gross-profit test—How to maintain balanced inventories—Determining overinvestment in inventories—Inventories in relation to income tax—Valuation of goods in process and finished goods—Methods of inventorying not allowed in computing income tax.

Inventories. The auditor's responsibility as to inventories was, until recently, subject to considerable controversy. Some auditors took the extreme position that an officer's certificate should be accepted as final, except for checking prices and extensions. Others insisted upon the gross-profit test, and others advocated testing the inventories by counting certain portions or sections thereof and by securing a quantity proof through production and sales.

The proper procedure was defined more clearly in the report of the American Institute of Accountants entitled *Extensions of Auditing Procedure,* referred to in Chapter IV. This report insists that "corroboration of inventory quantities by physical tests should be accepted as normal audit procedure." If it is impracticable to make such tests, the auditor's report should be qualified.

Where the inventories are in public warehouses or with other outside custodians, direct confirmation in writing from such custodians is acceptable, "except that where the amount involved represents a significant proportion of the current assets or of the total assets of a concern the independent certified public accountant shall make supplementary inquiries."

Government Rules for Inventories. The rules for checking and verifying inventories have been so well formulated by the Federal Reserve Board of the United States

Government in their bulletin entitled *Uniform Accounting* as to warrant their inclusion in full herewith:

1. Secure the original stock sheets if they are in existence and carefully test the typewritten copies with them and with tickets, cards, or other memoranda that show the original count.
2. See that the sheets are certified to or initialed by the persons who took the stock, made the calculations and footings, and fixed the prices, and satisfy yourself that they are dependable and responsible persons. Obtain a clear and detailed statement in writing as to the method followed in taking stock and pricing it; also a certificate from a responsible head as to the accuracy of the inventory as a whole.
3. A thorough test of the accuracy of the footings and extensions should be made, especially of all large items.
4. The inventories should be compared with the stores ledger, work-in-progress ledgers, and finished product records and stock records as to quantities, prices, and values, and any material discrepancy should be thoroughly traced.
5. Where stock records are kept and no physical inventory is taken at the time of the audit, ascertain when the last physical inventory was taken and compare it with the book records. If no recent comparison is possible, select a few book items of importance and personally compare with the actual stock on hand.
6. Where no stock records are kept, a physical inventory should be taken, preferably under the general direction of the auditor. After the inventory is completed he should apply the same tests to verify its accuracy as if the inventory had been taken before his arrival upon the scene.
7. When the cost system of a company does not form a part of the financial accounting scheme, there is always a chance that orders might be completed and billed but not taken out of the work in progress records. Especially is this the case when reliance is placed on such records to the extent that a physical inventory is not taken at the end of the period to verify the information shown therein. In these cases the sales for the month preceding the close of the fiscal period should be carefully compared with the orders in progress as shown by the inventory, to see that nothing that has been shipped is included in the inventory in error. Cost systems which are not co-ordi-

nated with the financial accounts are unreliable and frequently misleading. Special attention should be called to every case in which the cost system is not adequately checked by the results of the financial account.

8. Ascertain that purchase invoices for all stock included in the inventory have been entered on the books. Look for postdated invoices and give special attention to goods in transit.
9. See that nothing is included in the inventory which is not owned but is on consignment from others. If goods consigned to others are included, see that cost prices are placed thereon, less a proper allowance for loss, damage, or expenses of possible subsequent return. This does not include goods at branches, as the valuing of such stocks will be governed by the same principles as apply at the head office.
10. Ascertain that nothing is included which has been sold and billed and is simply awaiting shipment.
11. If duties, freight, insurance, and other direct charges have been added, test them to ascertain that no error has been made. Duties and freight are legitimate additions to the cost price of goods, but no other items should be added except under unusual circumstances.
12. As a check against obsolete or damaged stock being carried in the inventory at an excessive valuation, the detailed records for stores, supplies, work in progress, finished products, and purchased stock in trade should be examined and a list prepared of inactive stock accounts, which should be discussed with the company's officials and satisfactory explanations obtained.
13. The auditor should satisfy himself that inventories are stated at cost or market prices, whichever are the lower at the date of the balance sheet. No inventory must be passed which has been marked up to market prices and a profit assumed that is not and may never be realized. If the market is higher than cost, it is permissible to state that fact in a footnote on the balance sheet.
14. It may be found that inventories are valued at the average prices of raw materials and supplies on hand at the end of the period. In such cases the averages should be compared with the latest invoices in order to verify the fact that they are not in excess of the latest prices, and also with the trade papers, when market prices are used, to see that they are not in excess of market values.

15. Make an independent inspection of the inventory sheets to determine whether or not the quantities are reasonable and whether they accord in particular instances with the average consumption and average purchases over a fixed period. Abnormally large quantities of stock on hand may be the legitimate result of shrewd foresight in buying at a low market but may, on the other hand, arise from serious errors in stock taking.
16. Always attempt to check the totals by the gross-profit test and compare the percentage of gross profit shown with that of previous years. In a business where the average gross profit remains fairly constant, this test is a dependable one, because, if the rate of gross profit is apparently not maintained and the discrepancy can not be satisfactorily accounted for by a rise or fall in the cost of production or of the selling price, the difference will usually be due to errors in stock taking.
17. In verifying the prices at which the work in progress is included in the inventory, a general examination and test of the cost system in force is the best means of doing this work satisfactorily. In a good cost system little difficulty will be found with the distribution of the raw materials, stores, and pay roll, but the distribution of factory overhead cost is one that should receive careful consideration, the main points to be kept in view being:
    (a) That no selling expenses, interest charges, or administrative expenses are included in the factory overhead cost.
    (b) That the factory overhead cost is distributed over the various departments, shops, and commodities on a fair and equitable basis.
18. No profit should be included in the price of finished products or stock in trade. The price list should be examined to see that the cost prices of stock are below the selling prices after allowing for trade discounts, and, if they are not, a reserve should be set up on the balance sheet for this loss. If the company takes immediate steps to increase the selling price, however, the amount of this reserve may be limited to the loss on goods which may have been sold since the close of the period to the date of the discovery.
19. In case of companies manufacturing large contracts it is frequently found necessary to make partial shipments thereof. The question then arises as to whether it is per-

missible to include the profits on these partial shipments in the Profit and Loss Account. As a matter of fact, it is evident that the actual cost can not be known until the order is completed. It may be estimated that a profit will ultimately be made, yet unforeseen conditions, such as strikes, delays in receiving material, etc., may arise to increase the estimated cost. It is better not to include the profits on partial shipments, but information of this character which may have its influence in the decision of the banker upon a proposed loan may properly be laid before him. Of course, an exception should be made in cases where the profit on the partial shipments largely exceeds the selling price of the remainder of the order.

20. The selling prices for contract work in progress should be ascertained from the contracts, and where it is apparent that there will be a loss on the completed contract, a due proportion of the estimated loss should be charged to the period under audit by setting up a reserve for losses on contracts in progress.
21. If a company has discontinued the manufacture of any of its products during the year, the inventory of such products should be carefully scrutinized and, if unsalable, the amount should be written off.
22. The inventory should be scrutinized to see that no machinery or other material that has been charged to plant or property account is included therein.
23. Partial deliveries received on account of purchase contracts for material, etc., should be verified by certificates from the contractors, both as to quantities and prices.
24. Advance payments on account of purchase contracts for future deliveries should never appear in an inventory, but be shown on the balance sheet under a separate heading.
25. Trade discounts should be deducted from inventory prices, but it is not customary to deduct cash discounts. However, this may be done when it is the trade practice so to do.
26. While the inventory is being verified, the auditor should ascertain the aggregate sales for the last year. If the turnover has not been rapid, it may be due to a poor stock of goods. Some business men dislike to sell below cost and would rather accumulate a big stock of old goods than dispose of the old and unseasonable stock at a sacrifice. The usual outcome is that the stock becomes unwieldy and funds are lacking to purchase new goods.

The inventory and the gross sales, may, therefore, have a direct connection.

27. It may be well to reiterate that interest, selling expenses, and administrative expenses form no part of the cost of production, and therefore should not be included in the inventory in any shape.

Formula Inventories. In some concerns where production is by formula it is a fairly simple process to verify inventories, provided one is satisfied that the inventory at the beginning of the period and the purchases during the period are correct. In such a case it will be necessary only to multiply the total of each class of product sold by the formula for each class and to prove the production in process by material requisitions. The following table of proof might be found useful in this case:

Inventory at beginning (by quantities of each class of raw material)		....
Add—Purchases (segregated as above)		....
		....
Deduct:		
Sales made during period (by quantities and classes as above, based on formula)	....	
Materials in process at end of period (based on requisitions for uncompleted production)	....	
Materials included as per formula in finished goods inventory at end of period	....	....
Raw Material Inventory at end of period (segregated by classes)		....

This table will afford a total proof for raw materials inventory, and will, at the same time, if the raw materials inventory checks, establish the correctness of the inventories in process and of finished goods. If the raw materials total does not agree with the actual inventory presented to the auditor, then something must be wrong with the actual inventory itself, with the inventory of finished goods, with the inventory of goods in process,

with the sales, with the formula, or with the beginning inventory.

Cut-Off Inventories. There are certain types of manufacturing industries where a very accurate check can be had on inventories through so-called "cut-offs." By "cut-offs" are meant such points in production where materials have been completely used up and there is no stock on hand. Whenever a cut-off occurs, the book inventories are corrected if they need correction. If the cut-offs are frequent, then the elements productive of differences between book inventories and physical inventories can be readily traced and thereby practically eliminated. Wherever these cut-offs are used to adjust inventories, it is a simple task to prove the inventories at the end of a period by tracing purchases and production from the date of the last cut-off. Beginning inventories can also be very readily traced and verified.

Valuation of Inventories. Many business men are quite willing to concede that inventories for published statements should be valued at cost or market, whichever is the lower, but they are not very willing to write down their book inventories to market and thereby to disrupt their entire stores records. Nor are they willing to set up a reserve for the differences between market and cost prices when the next month may show a market price much in excess of costs. The limit to which most executives will go is to make a charge to Profit and Loss at the end of the year with a corresponding credit to the Inventory Account, which entry they will order reversed at the beginning of the next fiscal period by charging Inventory and crediting Surplus. The justification for this procedure is that the inventory shrinkage represents a temporary condition only, which should be reflected in the balance sheet at the close of the year, but that the actual loss from shrinkage cannot occur until the goods are sold—if it occurs at all. If the article is a finished

one, the market price will affect it; if it is raw material and becomes part of a finished product that has no determined market price, then fluctuations in prices of raw material (unless very marked) would probably have no bearing whatsoever on the sales price. Selling prices are, as a rule, based on costs rather than on market quotations of raw materials entering into finished product; at least this is true of the vast majority of producers and manufacturers. Producers of grain products or staple foods are, of course, more or less affected by fluctuations in prices of raw materials, and current reserves for such fluctuations might well be used as a guide in price making; but the greater percentage of manufacturers must operate on the basis of costs rather than on market quotations.

Cost Records to Show Cost Values. The auditor should insist, therefore, that the balance sheet, which is prepared on the basis of valuations, take cognizance of fluctuations down from cost price in inventories; but he cannot insist that the stores records be changed accordingly. The stores records should always be stated at cost so that the real costs of production may be determined. The shrinkage is bound to show up in sales made at a reduced price subsequent to inventory taking. The matter had best be handled through the two following journal entries, the first made on the closing day of a fiscal year, the second on the first day of the succeeding fiscal period:

December 31, 1934		
Profit and Loss	$.......	
Inventories (or Inventory Reserve)		$.......
To record shrinkage in inventories representing difference between market and cost.		
January 1, 1935		
Inventories (or Inventory Reserve) . .	$.......	
Surplus		$.......
To re-establish inventories to cost prices, reversing entry of previous year.		

Under the above-mentioned methods the controlling accounts for stores will not be affected, the stores ledgers themselves will not be changed, and yet the true value of inventories will appear in the balance sheet at the close of the year.

Inventories by the Auditor. In instances where inventories have not been taken and it becomes the auditor's duty to take the inventories or supervise their taking, very few if any risks are assumed by the auditor in giving an unqualified certificate as to inventories. In fact, one is inclined to believe that under such conditions the auditor is placed in a very enviable position because he has something definite and tangible to work from. From the inventories taken by him he can prove back the inventories at the beginning of the period, and by the use of the two he can further prove the sales and the production.

Proving Inventories by Quantities or Values. Let us assume that the auditor himself, his staff, or men under his supervision, have taken the inventories. To prove the beginning inventory (in quantities rather than by values) the following table could be used, provided the various classes of merchandise were not too numerous:

	QUANTITIES		
	Commodity A	Commodity B	Commodity C
Inventory Raw Materials at end of year (actual)	....	....	....
Add—Quantities sold (or in case of manufacturer, quantities sold, in process, and in finished inventory)	....	....	....
	....	....	....
Deduct—Quantities purchased during year	....	....	....
Inventory Raw Materials at beginning of year	....	....	....

The next step, in the case of a manufacturer, will be to prove the inventories of finished goods and goods in process at the beginning of the year. The following table can be used to prove the inventory of finished goods:

Inventory:

	Quantities Class A	Quantities Class B
Finished Goods at end of year (actual) . .	....	....
Add—Sales during year	....	....
	....	....
Deduct—Production of Finished Goods during year	....	....
Finished Goods Inventory at beginning of year	....	....

The goods in process inventory at the beginning of the year may be proved as follows *in values*:

Goods in Process at end of year (actual)	$........
Add—Cost of Goods Finished during year	....
	$........
Deduct—Total Production Costs during year . . .	....
Value of Inventory in Process at beginning of year . .	$........

The following table may be used to prove the production of finished goods:

Sales of Finished Goods during year, at cost	$........
Add—Inventory at end of year (actual)	....
	$........
Deduct—Inventory at beginning of year	....
Production	$........

Sales may be proved in quantities as follows:

Production during the year	$........
Add—Inventory Finished Goods at beginning of year .	....

Deduct—Finished Goods Inventory at end of year (actual)	....
Sales for year	$........

Gross-Profit Test. Whenever an inventory looks dubious to an auditor, it has been found good policy to apply the gross-profit test. For purposes of illustration we might assume that the inventory at the beginning of the period under audit was valued at $20,000.00 and that the purchases during the year amounted to $50,000.00, making a total of $70,000.00 to be accounted for. If the sales during the year amounted to $50,000.00 and the gross profit on sales for previous years was 25 per cent of cost, then $50,000.00 would represent 125 per cent. The cost of goods sold during the year should therefore be $50,000.00 ÷ 1.25, or $40,000.00, which, when deducted from the sum of beginning inventory and purchases ($70,000.00), would leave $30,000.00 as the approximate value of the inventory at the end of the year. If the physical inventory varied a thousand or a few thousand dollars from the test figure, such a difference might be readily explained through variations in sales prices, extraordinary fluctuations in purchase prices, etc.; but if, after providing for such unusual conditions, the inventory still varied from the test check by thousands of dollars, then a thorough investigation would be called for.

Where a proper cost system exists, the verification of inventories is much simplified. The cost department itself will have records which should closely agree with the inventories of finished goods and goods in process, and the stores ledgers, being operated on the perpetual-inventory plan, should show balances agreeing very closely with the physical inventories. In fact, the controlling accounts for Stores, Inventory in Process, and Finished Goods should practically check with the physical inventories. By making a fairly complete examination of the stores system and the cost system, the auditor can determine quite accurately the validity of the inven-

tories presented to him. This is especially true where the cost system is tied up with the general books of account.

Balanced Inventories. Many public accountants believe they have performed a thorough task when they have verified the quantities, prices, values, and total extensions of an inventory. That work is necessary, but we wish to suggest in addition a somewhat more constructive service which looks into the nature and relationship of the various classes of commodities to production or sales requirements. The auditor should try to answer the following questions not only for his own satisfaction but in order to guide his client:

1. How much of the stock is obsolete?
2. Is the obsolete stock a total loss or may it be used to advantage in any contemplated production?
3. May some new production be planned, particularly with the object of using the apparently otherwise obsolete stock?
4. If a mercantile establishment (wholesale or retail) may a new demand be created?
5. If no use can be found for such stock, how can it be most advantageously disposed of?
6. Is the admittedly usable stock so proportioned (in quantities) as to meet either the production or the sales plans and requirements of the client? In other words is the inventory properly balanced?

Suppose a manufacturer fabricates one product and that this product is composed of the following units of raw material:

Material A	6 units
Material B	3 units
Material C	5 units
	14 units

A properly balanced inventory would show stock on hand which would approximate quite closely the ratios existing between the commodities, because these are the proportions needed in making the product. Again, if the production program calls for a 60-day turnover, it would

apparently be proper to have the proportioned inventory take care of 60-days production at all times. Assuming the inventory to be adequately proportioned, are the quantities in excess or under the 60-day production requirements? Caution should be advised in either case, because a shortage may cause an interruption in production, whereas an overage indicates a poor buying and financing policy. At any rate, with a given production program and turnover, the auditor will find himself in a position to recommend proper maximum and minimum indexes for stores control.

Determining Overinvestment in Inventories. By inspecting the inventory in the manner suggested, it is possible for the auditor to indicate quite accurately any overinvestment of funds. Funds should not be tied up in inventories beyond an amount necessary to conform with production or sales requirements. It is not uncommon among business concerns to find large sums thus uselessly inactive, and at the same time find these concerns borrowing considerable money to meet other needs.

Sometimes variations from a proportioned or balanced inventory may exist, and yet the business may be properly managed. Such variations would appear under the following conditions:

1. Wherever and whenever it became advisable for an industry to buy beyond its needs because of especially desirable prices. Such a plan is ordinarily not desirable, however, because it is pure speculation, and a later price decline may prove disastrous.

2. When certain classes of merchandise or materials are more promptly delivered than others. For example, if it took sixty or ninety days to secure certain goods, whereas others could be readily obtained within a few days from date of order, it would be foolish to carry even the proportioned amount of the latter on the basis of a fixed turnover expectation, and, at the same time, it would be necessary to carry a proportionately heavy stock of the slowly-delivered goods.

INVENTORIES AND INCOME TAX

Inventories to Conform to Tests. The importance of proper valuation of inventories is strongly emphasized by the Federal Revenue Acts and the Regulations of the Treasury Department. Under these Acts and Regulations we find that there are two tests to which inventories must conform:

1. They must be in accord with the best accounting practices of the trade or business.
2. They must clearly reflect the income.

As a result, rules governing inventory taking and valuation cannot be uniform for all businesses, but must harmonize with the customs and practices which have become current in particular trades or businesses. However, these customs and practices must come within the scope of the best accounting methods in a particular trade or business. In order to reflect income clearly, the inventory practice of a taxpayer should be consistent from year to year. In fact, the government attaches greater weight to consistency than to any particular method of inventory taking or valuation as long as these latter two factors are substantially in accord with the regulations. As a rule, the inventories used by a taxpayer in his balance sheet to show financial position are satisfactory for purposes of reflecting income, provided, of course, that the proper accounting practices and principles have been followed.

Inventories are generally valued by accountants at cost or market, whichever is the lower, or at cost only. Either of these bases is in conformity with the requirements of the Revenue Act although public accountants, as a rule, prefer the "cost or market, which ever is the lower," method. The Revenue Acts clearly specify two methods for merchants and manufacturers, namely:

1. Cost.
2. Cost or market, whichever is lower.

Illustration. The B corporation has the following items of materials in its raw material inventory:

Description	Cost Price	Market Price
A	$100.00	$120.00
B	90.00	85.00
C	50.00	55.00
D	80.00	75.00
E	150.00	100.00
Total	$470.00	$435.00

If the first method of valuation were adopted (that is, all at cost) the inventory would be stated at $470.00. The market value of the entire lot is $435.00, but if the second method were used (cost or market, whichever is lower), $435.00 would not represent the valuation because the second method implies the application of the "cost or market, whichever lower," principle to each class of materials, so that the valuation according to the second method would be computed as follows:

Description	At Cost Because Lower	At Market Because Lower
A	$100.00	
B		$ 85.00
C	50.00	
D		75.00
E		100.00
Total	$150.00	$260.00

Items at Cost (Lower than Market)	$150.00
Items at Market (Lower than Cost)	260.00
Inventory at Cost or Market, Whichever Lower	$410.00

Valuation of Goods in Process. It is fairly simple to value an inventory of raw materials or supplies, or of the merchandise of a wholesaler or retailer, but a manufacturer has inventories of goods in process of manufacture and finished goods. Goods in process and finished goods contain not only materials and supplies from the store-

rooms but labor and manufacturing overhead besides; their value in the manufacturer's books is at cost. If, therefore, the "cost or market, whichever lower," method of valuation is to be applied to goods in process or to finished manufactured commodities, it is at once apparent that the composition of costs charged to these inventories must be determined. Wherever a good cost system exists, the separation of all cost elements in the "in process" and finished goods inventories is simple enough, and even in cases where the cost system is inadequate, the material element of finished goods can be quite readily determined. In connection with an up-to-date cost system, the following controlling inventory accounts are generally found in the general ledger:

1. Raw Materials.
2. Manufacturing Supplies.
3. Goods in Process.
4. Finished Goods.

The Raw Materials Account represents constantly the balance of raw materials on hand. The account is opened with the balance of materials or stores on hand at the beginning of the year, charged each month with the total purchases placed in the storerooms plus any freight or other proper charges, and credited each month with the values of materials that have been withdrawn for production purposes (generally on the basis of requisitions that are chargeable to specific jobs or production orders). The amount credited to the Raw Materials Account is charged to Goods in Process Account.

Manufacturing supplies are also charged to Goods in Process as used, although generally as an element of factory overhead and, in view of the fact that they are lost in the processes of manufacture, they are inventoriable only in their original unused state.

Goods in Process Account is opened with the values of such goods at the beginning of the year. At the end of each month the account is charged (as already indicated) with the value of raw materials going into production, with all direct labor employed in production, and with

those factory overhead expenses which are actually chargeable to production, such as depreciation, insurance, taxes, repairs, indirect labor, light, heat, and power, etc. Interest on the investment is not to be considered as an element of cost for inventory valuation. At the end of each month, the Goods in Process Account is credited with the total cost of all goods finished during the month, the offsetting charge being made to Finished Goods.

Finished Goods Account is opened at the beginning of the year with the value balance of finished goods on hand. It is charged at the end of each month with the finished goods received from the production department (that is, from goods in process) and credited with the full cost value of all finished goods sold, the charge going to Cost of Sales Account.

We have already indicated the ease with which raw materials may be valued at cost or market, whichever lower, but the valuation of goods in process and finished goods on this basis is somewhat more complicated, because we have not only materials to deal with but direct labor and factory overhead in addition. Where a good cost system exists, these elements of cost can be readily identified by means of cost records for both goods in process and finished goods. However, where no cost system exists, it is quite impossible to determine these components in the inventory of goods in process, and it is generally possible to obtain only the material element in the inventory of finished goods.

Case of Valuation with Proper Cost Records. We will first discuss these problems in connection with manufacturing plants that employ proper cost systems. In such cases production costs are generally tabulated by production orders or job orders. The requisitions for raw materials which are credited to raw-materials inventory accounts are charged to specific job or production orders. The direct labor is also charged to these orders, and the same is true of the factory overhead applicable to the

manufacturing processes involved in making the goods. When orders or jobs are finished, the entire cost of these orders (material, labor, and overhead) is credited to the Goods in Process Account composed of all the orders in process, and the remainder or debit balance in the account represents those orders or jobs not yet completed. To these latter have been charged various lots of raw materials, direct labor, and overhead. At the end of the year it is, therefore, possible to tabulate the entire inventory of goods in process in terms of raw materials, direct labor, and factory overhead by listing the job or production-order numbers which make up the Goods in Process Account. Such a statement will, of course, be at cost and the application of market prices as far as raw materials are concerned will resemble the former tabulation presented. Goods in process are generally of such recent creation that changes in labor rates would be negligible. However, where the in-process order has been in the plant for a long time, the labor rates should be investigated, and if they have gone down, the lower rate should be used. As a rule, nothing can be done with the factory overhead except to make certain that only the normal overhead has been charged. This matter will merit some more discussion later on. A goods-in-process inventory valued at cost or market, whichever is lower, might appear in tabulation somewhat as follows:

MATERIAL VALUATION

Prod. Orders	Material	Cost	Market	For Inventory	Total Inventory Values
101	A	$50.00	$60.00	$50.00	
	C	5.00	5.50	5.00	
	D	8.00	7.50	7.50	
	E	15.00	10.00	10.00	$72.50

DIRECT LABOR VALUATION

Hours	Cost Rate	Total	Present Rate	For Inventory	
20	$1.00	$20.00	$0.90	$18.00	
30	.80	24.00	.80	24.00	
					42.00
Factory Overhead					50.00
Total Cost for Inventory Purposes					$164.50

The above is illustrative of one of the probable many orders composing the Goods-in-Process Account but the advantages of applying the "cost or market, whichever lower" rule throughout is readily apparent.

The finished goods inventory can be handled in the same way as goods in process. The completed cost records for all goods finished are available in a cost department, and the separation of the materials, direct labor, and overhead elements is there. The process of tabulation for inventorying at cost or market, whichever is lower, would, therefore, be much the same as for the goods in process, although it might be possible that certain additional overhead items might have to be added.

Valuing Inventories without Cost System. Where no cost system exists and, therefore, no perpetual inventory and no identification of lots of materials in process, as well as no clear separation between the labor element in finished goods and in goods in process, one is limited in valuing inventories at cost or market, whichever is lower, to the raw materials on hand as raw materials (of which a physical inventory can be taken) and to the raw-material and purchased-parts contents of the finished inventory, and, then only, in so far as these materials and parts can be clearly identified. Without an adequate cost system the value of goods-in-process and finished-goods inventories must be more or less of an estimate unless values can be fairly fixed by some process of elimination. The danger of an elimination process is that the elements of waste in production cannot be determined and thus an expense may become a part of inventory.

In valuing the inventories of goods in process and finished goods, care must be exercised so that only actually utilized factory overhead expenses are included. Unless only that overhead which contributes to production is made part of inventory value, the inventory may be inflated so as to include either all or part of the cost of

idle capacity which is a pure business loss. This means that factory overhead must be charged to production on the basis of some rate which reflects a normal condition of operations. Such a normal rate should, therefore, form the factory-overhead content in inventory valuation. Any overhead which is expended beyond that included at the normal rate in inventories of goods in process and finished goods will then become an expense or loss, i.e., a deductible charge in computing gross income for tax purposes.

Illustration. The C corporation has sales of $500,000.00. Inventories at the beginning of the year were valued at $100,000.00, purchases during the year amounted to $300,000.00, and the inventory at the end of the year was valued at $150,000.00. Direct labor amounted to $25,000.00, and all factory overhead $50,000.00; that is, 200 per cent of direct labor. The plant worked at only 60 per cent of normal capacity. Nevertheless goods in process and finished goods were valued at the end of the year on the basis of adding 200 per cent overhead (the actual overhead) to the direct labor content in these inventories, the calculation being as follows:

INVENTORY AT END OF YEAR

Raw Materials (At cost or market, whichever lower)		$40,000.00
Goods in Process:		
Raw Materials (Properly taken) .	$20,000.00	
Direct Labor	4,000.00	
Overhead — 200 per cent of Direct Labor	8,000.00	
		32,000.00
Finished Goods:		
Raw Materials and Parts	$48,000.00	
Direct Labor	10,000.00	
Overhead—200 per cent of Direct Labor	20,000.00	78,000.00
Total as above indicated		$150,000.00

In preparing the tax return of the C Corporation on

the above basis the cost of sales and the gross profits would be computed as follows:

Sales		$500,000.00
Deduct—Cost of Sales		
Inventory Beginning	$100,000.00	
Purchases	300,000.00	
Direct Labor	25,000.00	
Factory Overhead	50,000.00	
	$475,000,00	
Less—Inventory End of Year . .	150,000.00	325,000.00
Gross Profit		$175,000.00

In view of the fact that the plant worked at only 60 per cent of normal, practically 40 per cent of the factory overhead would represent the cost of idle capacity. In valuing the inventories none of this idle capacity cost should be included and the normal overhead rate of 120 per cent (60 per cent of 200 per cent) to direct labor should be used. The cost of sales and gross profit recalculated on this proper basis would then appear as follows:

Sales		$500,000.00
Deduct—Cost of Sales:		
Inventory Beginning	$100,000.00	
Purchases	300,000.00	
Direct Labor	25,000.00	
Factory Overhead	50,000.00	
	$475,000.00	
*Less—Inventory End of Year . .	138,000.00	336,200.00
Gross Profit		$163,800.00
*Recalculation as follows:		
Raw Material		$ 40,000.00
Goods in Process:		
Raw Material	$20,000.00	
Direct Labor	4,000.00	
Overhead (120 per cent of labor)	4,800.00	28,800.00
Finished Goods:		
Raw Material and Parts . . .	$48,000.00	
Direct Labor	10,000.00	
Overhead (120 per cent of labor)	12,000.00	70,000.00
Total Inventory		$138,800.00

By way of explanation, it may be noted that by taking the inventories of goods in process and finished goods on the basis of including therein, a 200 per cent rate on direct labor for overhead, $11,200.00 (difference between $150,000.00 inventory and corrected inventory of $138,-800.00) of the $20,000.00 idle-capacity cost, forming part of the entire $50,000.00 factory overhead, was virtually shifted from expense (the $50,000.00 overhead) and inventoried. Mathematically considered, the following explanation will clarify the situation:

If the plant worked at only 60 per cent of normal capacity, then 40 per cent of the entire expended overhead ($50,000.00), equals $20,000.00, the cost of idle capacity.

The direct labor in goods in process and finished goods inventories amounted to $14,000.00 which was 14/25 of the entire labor expense for the year ($25,000.00); therefore, 14/25 of the overhead due to idle capacity or 14/25 of $20,000.00, which amounts to $11,200.00, was inventoried.

Since $11,200.00 of idle plant capacity was inventoried by using the $150,000.00 inventory, only $8,800.00 of the entire $20,000.00 idle plant capacity was taken as an expense.

Errors in the valuation of inventories, such as the error discussed just above, result in erroneous statements of financial condition and also in erroneous statements of operations.

Where no cost system exists, the danger of including the cost of idle capacity in inventories is ever present, because the entire values must be largely fixed by guess. In valuing the raw-material content of finished goods, the manufacturer without a cost system must actually secure an analysis of the raw material contained in the finished goods and prepare a specification sheet literally showing the formula of the finished product. As a rule, however, no such efforts are made and the inventories

of goods in process and finished goods are taken by estimate. It is therefore quite apparent that the manufacturer without a cost system has, through his delinquency, denied himself the privilege of effectively using the "cost or market, whichever lower" plan of inventory valuation.

Unsalable Goods. Goods that are unsalable at normal prices or unusable in the normal way because they are damaged, imperfect, shop worn, out of style, or odd lots, including second-hand goods taken in exchange, should be valued at bona fide selling prices less cost of selling, whether the cost basis or the cost or market, whichever lower, basis is used. If the goods represent raw materials or partly finished goods held for use or consumption rather than for sale, they should be valued on some reasonable basis (if usable) but in no case at less than scrap value. Bona fide selling price means actual offerings of goods during a period ending not later than thirty days after inventory date. The burden of proving inventory values of unsalable or unusable goods is with the taxpayer.

Consistency of Inventory Valuation. The privilege of selecting either (a) cost or (b) cost or market, whichever is lower, as the basis for inventory valuation was given to taxpayers for the first time in connection with their 1920 inventories, and whatever basis the taxpayer selected was controlling for subsequent years. Changes from an elected basis can only be made after permission is secured from the Commissioner. Goods that are so intermingled in an inventory that they cannot be identified with specific purchase invoices will be deemed to be either—

1. The goods most recently purchased or produced, and the cost thereof will be the actual cost of the goods purchased or produced during the period in which the quantity of goods in the inventory has been acquired.
2. Where the taxpayer maintains book inventories in accordance with a sound accounting system in which the respec-

> tive inventory accounts are charged with the actual cost of the goods purchased or produced and credited with the value of goods used, transferred, or sold, calculated upon the basis of the actual cost of the goods acquired during taxable year (including the inventory at the beginning of the year), the net value as shown by such inventory accounts will be deemed to be the cost of the goods on hand.

The balances shown by such book inventories should be verified by physical inventories from time to time and adjusted to conform therewith.

Inventories should be legibly recorded, properly computed and summarized, and should be preserved as part of the accounting records of taxpayers. These inventories are subject to investigation by the commissioner, who must be satisfied as to the pricing adopted by the taxpayer.

Various Methods of Inventorying not Allowed. The following methods of inventorying are not allowed:

1. Deducting from the inventory a reserve for price changes, or an estimated depreciation in the value thereof.
2. Taking work in process, or other parts of the inventory, at a nominal price or at less than its proper value.
3. Omitting portions of the stock on hand. (Note: All stock should be taken and recorded regardless of whether it has value or not.)
4. Using a constant price or nominal value for a so-called normal quantity of materials or goods in stock.
5. Including stock in transit, either shipped to or from the taxpayer, the title of which is not vested in the taxpayer.

Inventories at Cost. If the cost method of valuing inventories is adopted, cost means the following:

1. For merchandise on hand at the beginning of the taxable year, the inventory price of such goods.
2. For merchandise purchased during the taxable year, the invoice price less trade or other discounts, except strictly cash discounts, approximating a fair interest rate, which may be deducted or not at the option of the taxpayer, provided a consistent course is followed. To this net-invoice

price should be added transportation or other necessary charges incurred in acquiring the goods.

3. For goods manufactured during the taxable year.
   (a) The cost of raw materials and supplies used in connection with the product.
   (b) Expenditures for direct labor.
   (c) Indirect expenses incident to and necessary for the production of the particular article, including in such indirect expenses a reasonable proportion of management expenses (if applicable as manufacturing overhead), but not including any cost of selling or return on capital, whether by way of interest or profit.
4. In industries where the usual rules of inventory valuation are not applicable, costs may be approximated upon some reasonable basis and in conformity with the established practices of the particular industry involved.

Inventories at Market. Ordinarily, and for the normal goods in an inventory, "market" means the current bid price prevailing at the date of the inventory for the particular merchandise in the volume in which usually purchased by the taxpayer, and is applicable in the cases—

(a) Of goods purchased and on hand.
(b) Of basic elements of cost (materials, labor, and burden) in goods in process of manufacture and in finished goods on hand, exclusive, however, of goods on hand or in process of manufacture for delivery upon firm sales contracts (i. e., those not legally subject to cancellation by either party) at fixed prices entered into before the date of the inventory, which goods must be inventoried at cost.

Where no open market exists or where, due to stagnant market conditions, quotations are nominal, the taxpayer must use such evidences of a fair market value at the date or dates nearest the inventory as may be available. Specific purchases or sales made in reasonable volume and in good faith, or compensation paid for cancellation of contracts for purchase commitments, would be considered good evidence as to market value. Selling prices when lower than the current prices as first defined, may be used for inventory valuation and proper deductions may be made therefrom for selling expense. The tax-

payer must show sufficient actual sales for a period before and after the date of the inventory to substantiate his valuation. Prices which vary materially from the actual prices so ascertained will not be accepted as reflecting the market.

Inventories by Dealers in Securities. A dealer in securities may make his return of inventories in accordance with his methods of accounting, which may indicate that he values his unsold securities (his inventory) at either:

1. Cost.
2. Cost or market, whichever lower.
3. At market.

In making his return the dealer must describe the method he has employed and all securities must be inventoried by the same method, and that method must be followed in subsequent years unless a permission to change is given by the commissioner.

A dealer in securities is one (either an individual, partnership, or corporation) who regularly buys and sells securities from and to customers, who has an established place of business, and who engages in this business for the purpose of making gains or profits therefrom. If the dealing in securities is merely a branch of another activity, the securities held for resale only may be inventoried in accordance with the bases above indicated. In such cases, securities held for investment cannot be valued as inventory. Taxpayers who buy or sell securities or hold them as investments outside of their regular business, cannot be regarded as dealers in securities.

The provisions of the law relating to capital gains and losses on the sale or disposition of securities do not apply to regular dealers in securities.

Inventories at Selling Price. Some retailers employ the so-called "retail method" of pricing inventories and they may use this method in making their tax returns, provided the use of such method is designated on the return

and is used consistently. Under this method the inventory is priced at selling price and reduced to approximate cost by deducting the percentage which represents the difference between the retail selling value and the purchase price. The percentage is generally applied to departments or classes of goods, and should represent, as accurately as possible, the amounts added to the cost price to cover selling and other expenses of doing business and for the margin of profit. In computing the percentage, adjustments should be made for all mark-ups and mark-downs. It is also necessary that where departments are maintained the proper percentages be used for each department. No average percentage for the entire business should be used.

Valuation of Goods Taken in Exchange. The inventories of dealers in automobiles, pianos, and like articles usually contain a quantity of used or second-hand articles, the valuation of which demands special consideration. In such businesses it is customary to take in the used article as a part payment on the sale of the new article. The market value of the second-hand article is dependent upon its age and condition and often upon the expenditure of labor and material necessary to put it into marketable shape. The amount allowed for the used article on the sale of the new one does not necessarily represent the cost of the used article. It often represents not only the cost but also an additional amount which in reality is an allowance on the sale of the new article. Thus if a prospective customer has a used automobile worth only \$500.00, and is offered a new car, the published price of which is \$2,000.00, the dealer in order to close the deal may offer an allowance of \$750.00 on the used car, of which allowance \$250.00 is obviously an allowance on the sale of the new car. Such second-hand articles should not be valued for inventory purposes at more than their fair cost or market value plus the amount of an expenditure for putting them in a salable condition.

Test Yourself on Essential Points

1. State in outline form the principal points to be considered in the verification of inventories, as discussed in this chapter.

2. Should inventories of a manufacturing concern be taken at cost value, at market value, or at some other value? Five reasons. (From C. P. A. Examination.)

3. Would you examine the inventory of a firm, in view of the fact that the auditor is not responsible for the inventory? If so, why? If not, why not? (From C. P. A. Examination.)

4. What is turnover, and what use should an auditor make of it in an audit of a merchandising business? (From C. P. A. Examination.)

5. When auditing the accounts of a wholesale grocery house, it is found that a fire has just destroyed the entire stock of merchandise. What course would you follow to approximate the inventory? (From C. P. A. Examination.)

6. "Inventory of merchandise should be carried at cost or market, whichever is lower." Do you assent to this proposition? Can you suggest circumstances in which you would approve a departure therefrom? Would you be influenced by events or conditions subsequent to the date of closing the accounts? (From American Institute Examination.)

7. How should a trading company acting also as agent for an individual trader, show on its balance sheet the unsold consigned goods of the principal? How should the principal show the goods on his own balance sheet? (From American Institute Examination.)

8. How would you verify the inventories of goods in process and finished goods where no cost system is in use?

9. A manufacturing concern maintains a stores ledger for all its raw material, has a system of recording on a tag attached to the bins in which the material is kept, items put into bins when received, and items withdrawn therefrom, by requisitions on the storekeeper. Would an auditor be justified in accepting (as to quantities) a book inventory of materials, if he compared the balances with the bin tickets and found them in agreement with balances in the stores ledger accounts?

10. How would the auditor determine whether the inventory contained no obsolete or scrapped materials?

Chapter VI

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Prepaid Expenses

Distinction between prepaid expenses and deferred charges—Their place on balance sheet—Prepaid insurance, interest, taxes—Investments on balance sheet—Valuation of investments—Sinking funds—How sinking-fund cash should be invested.

In the past few years there has been some debate among accountants as to the place on the balance sheet which should be awarded to so-called "prepaid expenses." Should they immediately follow the current assets, or should they be included with "deferred charges," generally shown as the last group of assets on the balance sheet? It is necessary first to distinguish the two groups.

Nature of Prepaid Expenses. To some extent the two terms are used interchangeably in practice. Instead of giving definitions, accounting authorities are inclined to suggest a distinction by citing examples of items ordinarily referred to as "prepaid expenses" and other items ordinarily referred to as "deferred charges." The general distinction implied from the nature of the items in each group is that "prepaid expenses" refers to items paid in advance, but which in due course of business will enter wholly into the costs of the period immediately following, or at least within a shorter time than items which are classed as "deferred charges." Thus, prepaid expenses are very closely akin to inventories. They represent outlays which are to benefit future operations shortly, and their value to the business is accurately measurable. This is not always true of deferred charges which are more indefinite in character and which, at any rate, are drawn out further into the future. It is for this reason that they should immediately follow current assets in the balance sheet. This stand is strengthened when we make an inspection of prepaid expenses in contrast to deferred charges.

Prepaid expenses consist of such items as:

Prepaid insurance.
Prepaid interest.
Rent paid in advance.
Prepaid taxes.
Inventories of office and advertising supplies.

Supply inventories represent actual values which currently serve business needs, and in many concerns they are handled through inventory control records. Strictly these supplies should not be included with the inventories which become the objects of sale because they are not salable units.

Nature of Deferred Charges. Deferred charges are recoverable only through operational results, and they rarely have a cashable value. They are also deferred over a much longer period of time than prepaid expenses. Then again, the benefits from some deferred charges may not necessarily materialize. For instance, a special advertising campaign that is expected to produce future sales may prove a fiasco. Discount on the sale of bonds, although as truly a future interest charge as the portions written down from prepaid interest, cannot be recovered from the underwriters, even though the bonds are paid before maturity. Bond discount merely establishes the effective interest rate at which a business can borrow more or less permanent funds and can be recovered only through the continued operations of the business. Other deferred charges are organization expense, discount on the sale of capital stock, deferred selling expenses, prepaid dues, extraordinary repairs, etc.

Prepaid Insurance. The auditor should recommend that insurance premiums be charged to a Prepaid Insurance Account and that one-twelfth thereof (if year policies) be charged to Insurance Expense each month and the Prepaid Insurance Account credited. An insurance register may in some instances be recommended, in which the following details will appear:

Policy number.
Name of company.
Date of policy.
Date of expiration.
Nature of insurance.
Amount of insurance.
Amount of premium.
Twelve columns covering the months of a calendar year.

The important feature of an insurance register in the form above proposed is the section divided into the twelve columns for the calendar months. In these columns will be placed the monthly fraction of the prepaid insurance premium so that the sum total of each column will at once represent the amount chargeable each month to Insurance Expense and will, of course, at the same time be the amount by which the inventory of Prepaid Insurance will be relieved or credited.

If an insurance register as outlined be kept, the auditor should have no difficulty whatever in verifying the Unexpired or Prepaid Insurance Account. If no register is in force, he will have to determine the prepaid balance by listing all the policies and their unexpired portions. Wherever practicable, the auditor should recommend that all insurance be taken out on one specific date and preferably on the first day of each fiscal year. In the latter case, the matter of distributing the expense to the months would be simple and no division of the individual premiums would be necessary. Again, all insurance would expire with the year so that the Prepaid Insurance Account would be entirely eliminated at the end of each year. Any additional insurance which might, for one reason or another, have to be written during the year could easily be rewritten at the beginning of the next year to conform with the general plan. Where the insurance is extraordinarily heavy, the plan as outlined might not be feasible because of the large premiums all payable at one time. Then again, if universally practiced, the entire business of insurance companies would

fall into one month and it would probably be physically impossible to issue the policies. In individual cases, however, where the amount of insurance carried is moderate, the plan should work admirably and save the bookkeeper as well as the auditor considerable time in attaining their respective objects. It might be suggested as always feasible and where the annual plan could not be followed, to have equal portions of the insurance expire quarterly or monthly, thereby giving regularity to the Insurance Account and simplifying the accounting procedure.

Coincident with the examination of the Prepaid Insurance Account, the auditor should carefully inspect the policies; he should see that they are made out in the client's name; he should examine the co-insurance clause or any other restrictions; and he should be always on the watch for the contingent-liability clause on the policies of mutual or assessment companies. As a rule, there is a contingent liability of several times the premium paid on these policies. He should also examine generally into the adequacy of the amount of insurance carried and into the policies written with a co-insurance clause.

Prepaid Interest. Thirty-day discounts, unless coming near the end of the last month of a fiscal year, and unless of unusually large amounts, need not be included in the Prepaid Interest Account. But if the auditor should find a $100,000.00 note discounted for thirty days at 4 per cent on December 20 (assuming the fiscal year ended with the calendar year), he should certainly see to it that only one-third of the discount be charged during the year and the remainder set up as Prepaid Interest to be written off during the following January. We might recommend that all thirty-day discounts not coming on the first five days of a month, if of any appreciable size, should be charged to Prepaid Interest Account rather than to Interest Expense, so that each month may be burdened with its proper share of expense.

Any discounts for periods of over thirty days (unless

they be too small for consideration) should without any question be charged to Prepaid Interest Account and the expense properly allocated between months in proportion to the number of days covered by the term of the loan during these months. Thus a ninety-day loan of $1,000.00, discounted January 15 at 6 per cent, should provide first for a charge of $15.00 to Prepaid Interest Account, and roughly Interest Expense should be charged and Prepaid Interest credited in the following manner:

1/6 of $15.00,	or	$2.50	in January (½ month).
1/3 of $15.00,	or	$5.00	in February (1 month).
1/3 of $15.00,	or	$5.00	in March (1 month).
1/6 of $15.00,	at	$2.50	in April (½ month).
		$15.00	Total discount distributed.

On large loans the discount should be worked down to a day basis and each month charged on the basis of actual days in the month rather than on a thirty-day basis.

Where notes receivable are discounted, it is hardly ever desirable to set up the amount of discount as a deferred charge, because usually it is not large enough to require analysis. However, such discounts are of essentially the same nature as discounts on notes payable; and if sufficiently large, they should be analyzed in the same way. At the end of the year if the notes receivable discounted are numerous and the discount heavy, provision should be made for the prepaid portion.

Our concern here is chiefly with the regular notes of the client discounted as loans. These discounts the auditor should always (if they are for a period in excess of thirty days or if in large amounts) set up in the Prepaid Interest Account so that the period under audit and the period to follow may each bear its proportion of interest expense. The auditor must always be cautioned to make adjustments of this kind for both the end and the beginning of the period he is reporting on. If he sets up an

account for Prepaid Interest at the end without adjusting the accounts at the beginning, the interest expense for the period will be misstated. The adjustment at the beginning of the period will affect the Surplus and current profit and loss accounts, whereas the adjustment at the end will affect merely the current year's Profit and Loss Account and will create a prepaid expense temporarily viewed as an asset account for balance-sheet purposes. This whole subject may be illustrated by the following problem: Company A's books show charges during the year of $3,000.00 for loans discounted. At the end of the year the auditor finds that $300.00 of this amount represents prepaid interest on loans which will not mature until the subsequent year. We can readily see that the following entry must be made:

Prepaid Interest	$300.00	
Discount		$300.00

To set up interest prepaid chargeable to next year's expense since some notes do not mature until next year.

This entry would reduce the Discount Account to $2,700.00, but is that all that is chargeable to the current year? Let us suppose that the auditor's investigation shows that no provision was made for prepaid interest at the beginning of the year and that all the discounts were included as expense during the year prior. If it were found further that the prepaid interest at the beginning of the year (all charged to prior year's operations) amounted to $800.00, the following entry would then have to be made:

Discounts	$800.00	
Surplus		$800.00

To charge expenses of current year with portion of discounts on loans discounted in prior years, all the discount having been charged to prior year's expense.

It is readily seen that if the auditor had been content

to adjust the Discount Account for the end of the current year only, the discounts charged would have amounted to $2,700.00, whereas the actual discounts applicable to the current year amounted to $3,500.00. Had no adjustment been made for the beginning of the year, both the current year's accounts would have been wrong as well as the Surplus Account or the prior year's expenses. Therefore in dealing with all prepaid or accrued items when these are not considered in the books of account, adjustments must be made at both the end and the beginning of the period audited so that current operations may be properly stated and the Surplus Account at the beginning corrected.

Prepaid Taxes. Accounting practice in the distribution of taxes assessed on real and personal property varies. Sometimes the charge is pro-rated over the months in the fiscal year of the business in which it is assessed. Sometimes it is distributed in accordance with the fiscal year of the taxing body. For example, if the tax is levied in order to meet the expense of the taxing body for the fiscal year ending June 30, 1938, the business paying the tax should distribute the charge over that period, regardless of its own fiscal year.

Whichever practice is followed, the auditor should see that the procedure is consistent, that the charge is properly proportioned, and that the amount set up as prepaid is correct. Special taxes, however, similar to licenses, are generally paid in advance. The auditor should naturally inspect the tax-collector's receipt and verify therefrom the period covered.

Prepaid Rents. This item of prepaid expense can be dismissed with a few words. It is a legitimately deferred expense and must be written off during the period or periods it covers. The auditor must be sure that the entire rent charge for the period audited is properly accounted for, and that, therefore, the account at the begin-

ning of the period was also adjusted, if such an account existed at that time.

INVESTMENTS IN SECURITIES

Place on Balance Sheet. Investments should always appear under a separate caption in the auditor's balance sheet. If they represent temporary investments of a company's surplus that can be converted readily into cash, the caption should follow "Current Assets," or they might in fact be included as part of Current Assets. If, however, they represent partial control or more in subsidiary, affiliated, or other operating companies, their permanency would give them a place next to or immediately preceding "Fixed Assets." At any rate, the auditor should comment fully in the text of his report on the items composing "Investments" and they should appear as a separate caption in the balance sheet irrespective of their nature.

Procedure in Verification. All securities in the Investments Account that are in the client's office should be examined by the auditor and a complete list of them prepared. The securities out as collateral should be verified by correspondence, and any in transit to the client should be checked upon their receipt, and the transmitter circularized. If the transmitting agency be a branch office of the client (which office is also audited), the records of the branch should show the transmittal as prior to the closing of the branch accounts. If some of the securities were sold subsequent to closing date, covered by the auditor's certificate, the cash receipts therefor should be verified. All securities purchased subsequent to the audited period should be checked against the disbursement record.

The list of investments prepared by the auditor should yield the following information:

Description of the securities.
Date purchased.

Par value.

Number of shares or bonds and their denomination.

Rate at which purchased and total cost.

Interest or dividends received during the year.

Accrued interest on bonds (if any).

Market values.

Excess of market values over book values or the opposite.

Total issues of the companies.

Net worth of the companies where no market reports are available.

If out as collateral or as security, name of the holder and purpose of the collateral.

The list thus prepared, consisting of securities on hand, in transit, or out as collateral, etc., should be compared with the general ledger controlling accounts, and the interest and dividends received and interest accrued (if the accounts are kept on the accrual basis) must be compared with the corresponding general ledger income accounts.

Valuation of Investments. Reserves should be created in all instances where the market values are appreciably less than book values, at least for balance-sheet purposes. The Investment Account, however, should remain at cost and the entry creating the reserve at the end of the audited period may be reversed at the beginning of the next period as an adjustment to Surplus. Reserves should be set up whenever the company issues a balance sheet for public or credit purposes, to provide for shrinkage in market values below cost. But why not offset shrinkage of some securities by market excess over cost of others? Because it is poor business policy to anticipate profits and excellent and conservative to provide for any possible losses; tendencies downward are, to begin with, indications of danger and possible loss. It is always wise to provide against loss, for the gains will take care of themselves if from the nature of things gains must result.

If bonds are registered, the registration agent should be circularized. All bonds must be examined to see that

the coupons attached are intact and that they represent the next interest-payment date. Stocks should be made out in favor of the company or, where the law prevents, in the name of the authorized trustee of the company.

The value of an investment in subsidiary or controlled corporations can generally be determined by a partial investigation of the books of such corporations. If this cannot be done, then the auditor must limit his certificate by a statement that such investments are at cost or otherwise, but that their real value could not be determined since access was not had to the books of the affiliated corporations. If an auditor advises his client of a qualification of this kind to the certificate, provisions are generally made for a very thorough examination of the affiliated corporation's accounts.

Stocks purchased from brokers should be verified through the stockbrokers' advices. If the company carries securities on margin, a certificate of the company's account should be obtained from the broker and all open trades verified. There have been found a number of instances where stocks purchased on margin were included among the investments and where the account with the stockbroker represented a credit balance far in excess of the book value of the stocks, the credit balance as a rule representing not only a liability for stocks long but profits on trades besides. Such practices are to be condemned. Profits on closed trades should be transferred promptly to the Profit and Loss Account.

Mortgages. Mortgages held as investments should be thoroughly scrutinized, and they should be supported by the insurance policies. The auditor should also see that they have been properly recorded, and that all taxes have been paid on the mortgaged property, and that there are no other liens infringing on the value of the security. The auditor should further satisfy himself that interest payments were made promptly and in accord-

ance with the terms of the mortgage, and that the margin of security is ample. A mortgage on the property of a defunct corporation might be practically valueless or at least full recovery be doubtful. Any mortgages of this kind should be fully commented on in the auditor's report.

Sinking Funds

Sinking funds are as a rule created for specific purposes in connection with the retirement or gradual extinction of certain forms of indebtedness. Thus sinking funds may be provided for the retirement of bond or preferred-stock issues or for the payment of mortgages. The auditor should always refer to the deed of trust or contract providing for the sinking fund, in order to assure himself that all stipulations of these indentures have been complied with. The name of the trustee should be secured, and from him a certificate should be requested as to the amount on deposit and as to any interest credited thereon which may or may not be entered in the accounts of the auditor's client. It would also be advisable to have the trustee's certificate cover the question of sufficiency of deposit as per terms of trust agreement or mortgage. Where the deposits are not with the trustee, the auditor must assume full responsibility in testing their sufficiency and should request a certificate from the depository as to amount.

The sinking fund should always represent a separate deposit account, and the depository's certificate should so indicate. The investigation should cover each and every payment into the sinking fund, with the dates indicated. These payments should all be regular and on specific dates as provided in the trust indenture.

Though the sinking fund in total on a certain date may meet the total requirements to that date, there is no positive assurance through that fact that the terms provided by the trust indenture have been met. The

fund may have been built up sporadically or at a time just prior to the audit, in which case the terms of the contract have been violated and the interest-accumulation principle of sinking funds violated. In such cases the trustee would be equally culpable with the depositor.

Proper Investment of Sinking Funds. The auditor should be able to give some constructive advice as to the proper investment of sinking funds. If the fund exists to retire the company's own bonds and these bonds bear 5 per cent interest, it would certainly be good policy for the company to invest by purchase in its own bonds and then to cancel them. The company would earn the difference between the 5 per cent it would save and the possible 2½ to 3 per cent that it would receive on other sound investments. A company should never be satisfied to permit its sinking fund to take the form of a time deposit drawing from 1 to 1½ per cent interest, and a trustee handling a fund in that manner is subject to severe criticism. There are thousands of sound securities yielding a higher rate.

If the sinking fund is invested in securities, the securities themselves should be examined by the auditor and listed and their market or cash value determined. If the trustee is far removed from the client's place of business, he should provide a certificate to the auditor covering the investments, their market values, date and price of purchase, accrued interest, etc.

Sinking Funds of Municipalities. Sinking funds of municipalities require very special attention. The general laxity of control over the finances of a city imposes a severe test on an auditor in determining the adequacy of the provisions. The sinking-fund provisions for cities should be based upon actuarial science so that the amounts actually in the funds could be checked against the tables. The auditor can give advice of very constructive nature along these lines. In certain states the laws

fix the annual amounts to be paid into municipal sinking funds. It is the auditor's duty to see that the provisions of the laws are fully met.

Test Yourself on Essential Points

1. Explain the difference between prepaid expenses and deferred charges and show how each should appear on the balance sheet.

2. What is meant by a deferred charge to operation? Name three examples, and state how each is proved correct in an audit. (From American Institute Examination.)

3. As an auditor, how would you undertake to satisfy yourself in regard to the following items carried as investments:

   (a) First Mortgage 6% bonds of the Wilson Products Company, par value $100,000.00, cost value $90,000.00 market value $94,000.00?

   (b) Common stock of the National Radio Co., 5,000 shares, par value $100 per share, cost value, $110, market value $96?

How would these investments appear on the balance sheet and what values should be used for balance-sheet purposes?

4. In preparing a balance sheet of a corporation how would you classify or deal with securities—

   (a) Representing the entire ownership of a plant?

   (b) Representing an interest in a competing company?

   (c) Representing the investment of a sinking fund?

   (d) Representing the investment of a temporary surplus of cash?

   (e) Stocks and bonds by the company itself? (From American Institute Examination.)

5. In what manner should the auditor verify the existence of sinking fund assets?

Chapter VII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Fixed Assets

Productive and non-productive land—Methods of verification—Decline in value of land—Land companies—Cost of developed real estate—Buildings used productively—Additions and betterments—Method of analyzing building account—Buildings on leased land—Property additions and business growth.

Fixed Assets. Schedules should be prepared of the various fixed assets included under the following groups:

Land.
Buildings.
Machinery and Equipment.
Office Furniture and Fixtures.

Land. Where first audits are being conducted, the deeds to lands should be carefully examined, the abstract of title inspected, and the necessary court records investigated so that assurance may be had that titles are clear and that there are no liens recorded against the property. The original cost price plus any legal or recording fees, surveying costs, etc., should represent the opening book value placed on the property, and should furnish the starting point to the auditor for a further analysis and inspection of the Land Account.

The lands of a company should be classified under the headings of productive and nonproductive; that is, lands held for sale or for other purposes, and lands actually utilized for producing income. Charges to these properties should cover only improvements or expenditures which will produce an increase in revenue. Ordinary taxes are carrying charges covering government protection, and these should not be charged as an asset. It might be permissible to charge the tax on land to the Property Account during the period of building construction if construction work is started immediately after the acquisition of the land, because in such instances it

is very evident that the land purchase was not for the purpose of acquiring land but for the purpose of erecting buildings to be used productively. In all other instances taxes should be regarded as an insurance by the state for protection and service. Special assessments, however, covering street improvements adjacent to land, sewer construction, etc., are for actual improvements and necessarily enhance land values. All other charges to the Land Account should represent improvements or additions, and the auditor should be very careful in his scrutiny of these charges so as to be sure that values have been actually increased. Charges to the account because of re-appraisal of land values cannot be approved since they anticipate a profit which cannot be realized or determined until the land is sold. They may be tolerated if the company offsets the increase in the Land Account by a reserve for an equal amount.

Many public accountants assume offhand that land does not depreciate. Land values may depreciate as well as appreciate. In fact, a location may lose its value to a manufacturer so as to force him to dispose of his land at quite a sacrifice. Again buildings used for manufacturing purposes must be sold with the site. The buildings may be entirely adequate for manufacturing purposes and would be suitable if properly located. The loss engendered by a condition of this kind certainly represents a depreciation of land—at least for manufacturing purposes—and not of buildings. Irrespective of suitability of site there may be depreciation of land values due to numerous other causes, even though a plant may advantageously continue its operations on the land. This point is emphasized to counteract the tendency to write up land values because of presumed increases in sectional values. Such increases may be very evident to the man who wants to buy or to the lot seller, but they may not be so well defined to a man who wants to sell with buildings or who wishes to remove to a more

advantageous manufacturing site. The location of a piece of land for a special purpose or facility is after all the gist of the whole matter.

Land Companies. The land account of a land company must be very carefully analyzed. In such a concern the initial administrative and selling expenses are necessarily large. None of these expenses is chargeable to the Land Account. Advertising and selling expenses may be set up as deferred charges until the sales begin and some of the administrative expense may be deferred, but under no condition are these items chargeable to the Property Account itself. Only actual improvements, such as sidewalk construction and street paving, can be capitalized. The original purchase of the land should be charged to an Unimproved Real Estate Account. As sections are laid out into lots, the Unimproved Real Estate Account should be credited at cost and a Lot Ledger Account debited. The lot ledger itself will contain the detailed descriptions and values of the individual lots. If buildings are put up, the Lot Ledger Account is charged and the improvement entered under the individual lot in the subsidiary lot ledger. When the building is completed, the entire improved lot is taken out of the lot ledger and transferred to an improved real estate ledger.

There may be, therefore, three distinct ledgers which the auditor must examine, viz., the unimproved real estate, the lot, and the improved real estate ledgers. It is important to gain assurance that all the amounts carried in these ledgers are at cost and that they represent actual improvements. On the basis of these ledgers depends the construction of the various Cost of Sales Accounts. When lots or improved parcels are sold, the buyer should be charged and Sales credited; the lots sold will be credited and cost of sales charged. All selling and administrative expenses should then be charged against the gross profits represented by the difference between the Sales and the Cost of Sales Accounts.

The unsold lots at the end of the period should be compared with the company's maps and all customers' balances for lots sold should be verified by correspondence. Unpaid balances on tracts purchased should be verified in the same manner and the contracts for both the purchase of tracts and the sale of lots thoroughly examined. Very often payments on purchase price are proportioned to the receipts from sales.

Buildings. In examining the Building Account, the auditor should at once make a clear distinction, in schedule form, of buildings used productively (or in the business) and of buildings used for other purposes or not in use at all. This is valuable not only for purposes of analysis but also to indicate the amount of capital tied up in nonproductive assets. It should be remembered that the upkeep, depreciation, and carrying charges of idle plant might be considered in price making and is thereby an unjust burden on production or trading. Investment in plant should bear a proportional and logical relation to production or volume of business so that "unearned burden" may be at a minimum and so that all plant be kept as close to peak production as possible.

Additions and Betterments. The controlling account for buildings should agree with the property ledger (if one be kept) and the balances at the end and the beginning of the period should tally with the subsidiary ledger balances. All additions made during the period must be examined and proper authorizations secured for the expenditures. If construction was carried on by contractors, the contracts should be examined. If the construction work was performed by the client's own labor, the pay-roll records must be inspected and the material requisitions called for. Additions should be entered on the books at cost, and no profit should be taken into the asset account for construction work done by the client.

If a large portion of the labor force was employed in construction work and withdrawn from regular production departments, a portion of factory overhead may be included in the construction charge, but only when the regular productive factors of the company or client were utilized by the construction labor. Where this is not the case and only odd hours of labor are given over to construction work, it is improbable that the factory overhead would be appreciably affected by such sporadic efforts, and it would be deemed a violation of conservatism to include a portion of factory overhead as a construction cost.

Care must at all times be exercised by the auditor with reference to charges to Building Accounts. These charges must represent real additions or changes which will increase earning capacity. They must not be renewals or repairs. Any construction which merely re-establishes the original plant or portions thereof is chargeable to Depreciation Reserve Account and not to Property Account.

Analyzing Building Account. In analyzing the Building Account the auditor should prepare schedules giving the following details:

1. Original cost or purchase price (in the case of a first audit), or balance at beginning of period (substantiated by proper invoices, deeds, cost records, or purchase contracts).
2. Additions (as evidenced by properly authorized vouchers, contracts, or cost records).
3. Total values at cost.
4. Amounts of depreciation provided and rates of depreciation.
5. Values on which depreciation is based.
6. Depreciated values.

It is ordinarily proper to figure depreciation during a year on balances at the beginning of the year. Additions made during a year to buildings are not as a rule depreciated. Though this rule is general, it is not always applicable. If an entirely new structure were completed

within the year and became an operating factor, it would certainly be very poor cost accounting not to figure depreciation into operations. But, on the other hand, if only minor additions were made to buildings, it would be very troublesome to adjust depreciation schedules and rates every time such additions were made. The treatment, therefore, depends entirely upon the magnitude and nature of the property additions.

Depreciation reserves must be studied by the auditor carefully, not only as to sufficiency but as to mode of construction. Depreciation does not consist of a portion of profits set aside at the end of the year. Depreciation is a current, everyday operating expense and as such must be currently included in costs. This is just as true of building depreciation as it is of the depreciation of the more direct operating factors. There are fairly well established depreciation rates for buildings of different types of construction. Various state commissions have given careful study to these matters and construction engineers have delved deeply into the subject. The rates should of course be based on the estimated life of the building, with due regard for the possibility of obsolescence.

Buildings on Leased Premises. Where buildings have been erected on leased premises, it will be necessary to write off the entire value of the buildings during the term of the lease unless some provision has been made with the lessor as to partial compensation. The auditor should satisfy himself that the amounts written off are ample.

An exception to the rule that the buildings should be written off during the term of the lease exists when the lessee has the option of renewal. In this case, depreciation may be computed on the estimated useful life.

Adequacy of Insurance. In connection with the analysis of the Building Account, the auditor should call for all insurance policies, in order, first, to determine the

adequacy of the insurance; second, to assure himself that the policies are in the company's name; and third, to serve as an additional proof that the properties are not hypothecated.

Property Additions and Business Growth. From a constructive standpoint it may be well for the auditor to investigate the effect of property on general business growth. If, for example, in a manufacturing business extensive additions have been made to plant, machinery, and equipment, the auditor should determine whether these additions have led to a proportionate increase in production. It may not be possible to test additions or improvements through an application in detail of the law of diminishing returns, but surely a general investigation may show whether the increased productivity was in some way commensurate with increased capital outlay. In fact, a survey of this kind which should consume very little time may lead to a definite knowledge of maximum productivity and returns as related to the different types of capital investment.

Test Yourself on Essential Points

1. As to the asset of land:
   (a) What rule of valuation applies for Balance Sheet purposes?
   (b) What rule of valuation applies when used for a factory site?
   (c) What rule of valuation applies when purchased as an investment? (From C. P. A. Examination.)

2. What would you consider satisfactory evidence of the correctness and propriety of expenditures of land purchased? (From American Institute Examination.)

3. A firm carries on its books a number of parcels of land. By what means could the auditor satisfy himself as to the ownership and value of the several parcels? (From C. P. A. Examination.)

4. State how you would determine the valuation of land subdivided into tracts or lots for sale.

5. What method should an auditor employ in determining the value of buildings? (From C. P. A. Examination.)

6. A manufacturing company owns buildings in another city, that have not been used for business purposes for years. Indicate how you would show:

(a) The property on the balance sheet.

(b) The expenses and taxes thereon in the profit and loss statement. (From C. P. A. Examination.)

Chapter VIII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Fixed Assets (Cont'd)

Procedure in verification of machinery and equipment—Gauging adequacy of reserve for depreciation—Varying rates of depreciation for different kinds of machines—Valuation of small tools—Valuation of drawings and patterns—Verification of office furniture and fixtures—Delivery equipment—Appreciation of fixed property.

Machinery and Equipment. Considerably more care must be exercised in analyzing the Machinery and Equipment Accounts than the Building Account. The buildings as a rule are few in number, their construction is easily determined, and their life of utility readily estimated. Not so with machinery. A machine may last twenty years in one shop, whereas the same type of machine may in another be ready for the scrap pile in five years.

The use to which machinery is put, the time it is used, the amounts expended for repairs and replacement of parts—all these elements must receive consideration by a careful auditor. In fact, a knowledge of shop conditions is almost essential before sound conclusions can be drawn with reference to the Machinery Account.

In many companies detailed records are kept, showing the cost, date of purchase, factory number, type, maker, and description of every machine. These records, as a rule, should be tied up with the general books, because they are of very great value to the auditor as a check against the amounts set up in the controlling account and for purposes of verifying depreciation. In stating depreciation it should be remembered that every machine should be treated as a unit. A flat rate on all machinery is entirely inadequate and unjust. High-speed machines may last five years, whereas a low-geared device may remain in effective service for twenty years or more.

Appraisal companies, although not always entirely re-

liable in their estimates of values, have contributed considerable by their detailed records or lists of machinery furnished with each appraisal report, and a company may conveniently use the appraisal sheets as subsidiary machinery ledgers, making, of course, whatever adjustments are necessary to bring the values down to real depreciated values. Columns should be provided on these appraisal sheets for depreciation, repairs, and replacement of parts, which will give the necessary data for the amounts to be credited to Depreciation Reserve Account, the information as to annual repair cost, and the sum to be charged against Depreciation Reserve, respectively.

The auditor must be on guard constantly against the commission of two common errors, viz., the error of charging repairs to asset accounts, and the error of charging renewals to either asset accounts or expense accounts. Repairs cannot cancel depreciation any more than medical attention during life can give life everlasting. Repairs must always be charged as an operating cost, and renewals must be charged against the reserve for depreciation since they tend to re-establish the equipment to its original status, thereby restoring the capital intact.

Gauging Adequacy of Reserve. The adequacy of a reserve for depreciation for machinery must therefore be gauged by the sum of the accrued depreciation on all machines taken individually. It is needless to say that an examination of the Machinery Account along these lines is in many instances an enormous task, but it is the only scientific method, especially in a first audit. The work, of course, is reduced where individual machine records are kept. These records should be inspected thoroughly and the depreciated totals should agree with the general ledger Machinery Account after deduction therefrom of the reserve for depreciation.

Varying Rates of Depreciation. The importance of pro-

viding proper and varying rates of depreciation for the different properties included in the Machinery and Equipment Accounts cannot be overemphasized. Nor can the use of a subsidiary machinery and equipment ledger be too strongly recommended. No proper data as to depreciation can be maintained without such a ledger. No business man would be guilty of throwing all his accounts receivable into one account and without name or place. The values tied up in machinery and equipment are as a rule far in excess of the accounts receivable. Business consists entirely of conversion and exchange of values. Therefore, why not put values on an equal basis for accounting purposes? Cash invested in machinery should have the same attention as cash in bank. Both are susceptible to changes and shrinkages and both are convertible, in fact are daily being converted, into values of different character. The depreciation of the machine becomes part of the value of the finished commodity, which in turn becomes an account receivable convertible into cash. Depreciation thus actually is converted into cash. It should therefore receive as much attention as the Cash Account. It is as important currently, since reflected in every sale and cash receipt, and it is of even greater importance ultimately, since through its inclusion in the selling price, provision has been made for the retention of capital investment and for the replenishment of capital when the machinery is worn out.

Capital invested in fixed assets is a deferred charge to future operations. It is like prepaid insurance. The insurance premium must be written off into operations currently during the life of the policy. The value of the investment must be written off during the life of the various pieces of property. Both are recoverable through sales, since both are included in the cost of production, the result being that the insurance premium and the exhaustion of the capital (depreciation) are both repaid

in cash. In taking this view of capital invested in fixed assets, one can readily appreciate the necessity and logic of providing fully for the exhaustion, through use, of plant and equipment. Unless provision be made currently for the disappearance of fixed assets into production and consequently into selling price, a manufacturer will soon find himself in the serious dilemma of possessing no capital at all. When confronted with this situation he will no longer be able to restore his capital through sales, because the enormous prices he would have to charge would put him out of business entirely. The auditor cannot, therefore, insist too strongly that adequate provisions be made for depreciation and that depreciation be considered currently in order that it may at all times be reflected in the sales price and be recoverable through it.

In examining the Machinery and Equipment Accounts, the auditor must assure himself that no obsolete machines are included. The detail machinery ledger should show readily the machines in use, those not in use, and those ready to be scrapped.

Small Tools. Small tools for either hand or machine use, dies, jigs, and templates depreciate very rapidly indeed, and the provision must therefore be very liberal. In fact, it is advisable to set up a normal inventory for this equipment which will closely represent the total investment in these devices, currently charging all replacements and additions direct to expense accounts. This practice would not be feasible, however, at times when extraordinary outlays for tools, etc., would have to be made. In most concerns, however, the investment in equipment of this character would be fairly constant, so that all replacements might fairly be charged to Expense. Quite a number of printers are employing this method in connection with their Type Investment Accounts. The inventory of tools must, of course, be fully verified, irrespective of how it is carried in the books.

Special tools made in connection with job work are generally charged to customers, although they may be held by the manufacturer. The auditor should be on guard against the inclusion of these in the manufacturer's inventory. These devices sometimes run up into large sums of money.

Drawings and Patterns. Drawings and patterns should also be depreciated within a short period. Designs change constantly and drawings and patterns are worthless the moment the design changes. It is of the utmost importance to inspect accounts of this nature thoroughly. There is always a tendency on the part of executives to overestimate the values invested in assets of this character.

Office Furniture and Fixtures. The residual value of assets of this nature is an uncertain item and the amounts that may be recovered, as a rule, are small. However, as in the case of all assets in a going concern, they should be carried at their operating value. Many companies carry their furniture and fixtures at the nominal value of one dollar. This may be appropriate where the investment is light or where the furniture and fixtures are of a special nature. There is, however, little justification in carrying these assets at less than scrap value where the investment is quite heavy. The depreciation in the latter case should be liberal and the account reduced to scrap value in five years or less. The frequent changes in this kind of equipment and the damage caused by shifting entail heavy shrinkage in value. The construction of the furniture should guide the auditor in passing on the depreciation factor. Steel furniture, if the styles and purposes for which the devices are used do not change, might easily last twenty years, whereas wooden furniture, while it may last, would probably be so marred and damaged after several years' use that its serviceability would be questionable. After all, the whole subject resolves itself into a matter of judgment, with the

caution to the auditor that the provision for depreciation be liberal.

Delivery Equipment. Horses in heavy service give out rapidly and should be depreciated at about 25 per cent of cost annually.

Wagons have so generally gone out of use for delivery purposes that one hesitates to recommend a rate of depreciation. The depreciation normally would be between 10 per cent and 15 per cent a year, but the use of automobiles for delivery purposes has become so general that wagons are almost obsolete, at least for the larger percentage of industries and businesses. The depreciation of automobiles depends on their use. For light delivery, a rate of from 15 to 20 per cent should be ample; heavy continued service might call for from 20 to 30 per cent. These rates ought to be ample because so many parts of an automobile can be replaced. There should be little question, therefore, about the approximate life of an automobile, and it would appear that for delivery purposes one might reasonably expect an effective use for from four to five years. The auditor should in all cases be guided by the experiences of the companies he has audited. Automobiles are in such common use that the information as to their life of effectiveness is quite general and fairly well established.

Rates must vary according to the uses of the machinery and equipment. There are no standard rates that can be used under all conditions. However, the Bureau of Internal Revenue, with the co-operation of trade associations and corporations, has worked out tables which are suggestive of general practice. These tables cover quite specifically various types of buildings, machinery, and equipment, under both heavy and light service, and will be found of interest and value.

Appreciation of Fixed Property. Our discussion has been confined almost entirely to the value of fixed assets

based upon cost. Frequently the auditor must pass on property values stated on the books in excess of cost. The Federal income tax laws provide that cost or market, whichever is higher, at March 1, 1913, may be used as a base for computing profit from the sale of fixed property acquired before that date.

The cost of building materials, equipment, and labor increased steadily from 1914 to date. Although there has been some decline in recent years, costs are still greatly in excess of those prevailing before 1914. A permanently higher level of building costs has, no doubt, been established, owing to the marked changes in the labor situation. Consequently, quite a number of business concerns have had appraisals made and have adjusted their fixed property accounts for tax purposes to obtain the maximum deduction for depreciation and properly to record profits from properties sold. Then, again, other concerns have appreciated their plant assets so that their costs will be consistent with competing or similar concerns who acquired their plant assets at advanced costs. In view of these conditions the auditor may find that the property values have been appreciated to the real values, in case such property was acquired at a low cost far below the present sound value. He must, therefore, pass upon such values, but, before doing so, he should determine whether the assets have been appreciated to a point where a reasonable rate of income cannot be earned on the amount regarded as the augmented capital.

An appraisal of property that is reasonable and authoritative, whether made by a public appraiser or by the officials of the concern itself, must be recognized by the auditor. However, in all cases, the auditor should state the pertinent facts regarding the appraisal in the balance sheet and audit report.

From the auditor's standpoint, the treatment of the credit arising from the appreciation of fixed assets' accounts is very important. Does the appreciation repre-

sent an adjustment of previous overcharges against operations for depreciation, repairs, renewals, and replacements? Or is it an increase in values in accordance with the reproductive values (value of an asset new at current prices) and the sound values (reproductive value less accrued depreciation)? If the former is the case, the credit may be properly included in the regular surplus; if the latter condition exists, the increase should be shown in a separate surplus account with proper designation, such as "Surplus from Unrealized Appreciation" or "Reserve for Appreciation of Fixed Assets."

When costs are rising, it is desirable to have an appraisal made occasionally to find out if the property is adequately covered with insurance, since insurance adjustments in case of property destroyed by fire are based, not upon cost values, but replacement or sound values. Under ordinary conditions, the auditor should advise against the appreciation of property values in accordance with reproductive values.

Test Yourself on Essential Points

1. The machinery used by a firm has been purchased on the instalment plan, with monthly payments, and under the stipulation that title shall not pass until the last payment has been made. Outline your audit of this account and show how it would appear on the balance sheet. (From American Institute Examination.)

2. State briefly what you would do if included in the item of "Real Estate, Plant, and Equipment" is the sum of $25,000.00 representing the cost of certain improved real estate, with interest and taxes thereon, which the company had purchased seven years previous for the purpose of building a branch factory, which project had been abandoned. (From C. P. A. Examination.)

3. In auditing the accounts of a manufacturing corporation, you find that the company has expended a total of $3,000.00 worth of its own materials, labor, and expense in constructing a machine for its own use. This machine, if bought in the open market, would have cost $4,000.00. Is it sound accounting to capitalize this machine at the market price? Give reasons. (From C. P. A. Examination.)

4. How should a reappraisal of capital assets be treated on the books of a going concern:

(a) When it involves appreciation?

(b) When it involves depreciation? (From American Institute Examination.)

5. Give reasons why it is sometimes desirable to increase the book values of fixed assets when the increase does not represent additional expenditures, but rather increased valuation as a result of economic changes. How should the appreciation be shown on the balance sheet?

Chapter IX

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Intangible Assets

Intangible assets defined—Patents and method of amortization—Value of patent dependent upon extent of its profitable use—Treatment of patents expense amortized—What constitutes the cost of a patent—Trade-marks and copyrights—Franchises—Leaseholds—Separation of intangibles from fixed assets.

Intangible Assets. Intangible assets are those which, when considered alone and detached from a going business, may have little or no value, but, when forming part and parcel of a going business, may be the very lifeblood of the business. Some intangible assets such as goodwill, trade-marks, copyrights, trade names, franchises, and leaseholds are a business force or power much like the power that flows from strong character. Their force as a factor in the success of the business cannot be exactly measured, but is none the less a real power of influence for success. Other intangible assets, such as patents, have more definite value and are more difficult to distinguish from tangible assets.

Patents. The life of a patent is seventeen years. Ordinarily, the cost of the patent should be spread out over the operations utilizing the patent during these seventeen years, usually in equal annual amounts. If, however, the patent is of very special features, usable during a limited number of years, it should be written off during those years. For example, a specially patented device might be used in mining. The patent cost therefore should be amortized during the period of mine depletion if that period is less than seventeen years.

Determining Value of Patents. The value of a patent is entirely dependent upon the extent of its profitable use. A patent may have cost a lot to develop, and yet it may, through various circumstances, have become of

little or no use to the business; or a patent may have cost little to develop, yet it may be exceedingly valuable.

Whatever the prospects of development may be, the initial valuation of a patent should be its cost, including expenses of securing the patent, of experimentation and development, and of protective legal activities.

Unless a patent demonstrably produces profit, it should not appear on the balance sheet. Additional earning power from patents can sometimes be established by comparing operating results before and after patent utilization, showing how profits have been affected by patent utilization. But care must be taken not to ascribe increased profits to patents when such increased profits are due primarily to other influences. Profit comparisons made on the basis of the same volume of business and the same general degree of efficiency in operating the business, fairly indicate the value of injecting a patented device or process into the business.

The annual amount charged off as the cost of a patent during its life should form part of manufacturing costs if the patent affects the factory operations. Such costs should be included as part of factory overhead or burden rates if predetermined overhead rates are used in figuring costs. If the patent covers an office device used in the business, the amortization charge will become an administrative expense or possibly a selling expense, or it may be both.

Patents are either developed within a business or they are purchased. When purchased, the unexpired term of the patents should become the basis of amortization. Often patents are purchased with goodwill and no distinction appears as to the separate values of each. If a patent purchased with goodwill had but a year or two to run, its value to the buyer would be almost nil, and the entire purchase might be treated as a goodwill purchase. But, if the patent had a life of five or more years and, besides, had a known operating value, its value would be

considerable and its separate cost should be established. This consideration is important when we bear in mind that a patent depreciates and that goodwill should not be depreciated ordinarily.

The auditor should make sure that the charges to the patent account or to similar accounts like copyrights, trade-marks, etc., represent only actual cost in the case of purchase or legitimate expenditures in the case of internal development. All legal expense in connection with obtaining patents, etc., and for protecting them may be properly capitalized. The preparation of drawings, patterns, and experimental expenses are also chargeable.

Litigation expense in protection of a patent may justly be charged to the Patent Account, but any legal outlay in connection with a suit against others for infringement should not be capitalized through the Patent Account. Such expenditure may be deferred until recovery on the patent infringement suit and then charged against the income from the infringer, but it cannot be regarded as an expense of establishing the value of the patent rights.

Patents or other legalized rights often become valueless or obsolete long before their expiration. Whenever this is true the auditor should insist that the accounts reflecting these rights be written off against Surplus Account. All dead timber should be excluded from the balance sheet.

Trade-Marks and Copyrights. The value attached to trade-marks is analogous to goodwill, since both represent the value of a going business and both become valueless if the business is discontinued or the earning power is nil. Whatever value a trade-mark may have lies in the profit-making power of the business and the legal protection given to the owner to use it. Seldom is a separate valuation placed upon trade-marks acquired unless they have been acquired at a great cost of advertising. When a business is purchased, the value of the trade-marks is

included in the amount paid for goodwill. Therefore, trade-marks are not depreciated as patents or copyrights are, but are ordinarily combined with goodwill and so carried as long as there is no permanent decline in the earning power of the business.

A copyright has a life of twenty-eight years, and may be renewed at the end of that period. The demand for a copyright seldom justifies carrying copyrights as an asset for the entire period of its legal duration. The cost of copyrights may be conservatively written off against the first edition of a publication. If carried for a longer period, the auditor should investigate the probable demand for the publication and determine a reasonable period over which the cost of the copyright should be carried.

Franchises. A franchise is a privilege granted by some governmental unit, usually to public-service corporations, to operate in a certain territory. It is either for a stipulated period or may continue indefinitely. The cost of franchises for a stipulated term of years should be amortized over that period. The auditor should investigate all particulars regarding franchises, including the period and any restrictions or requirements.

Leaseholds. Leaseholds arise in connection with long-term leases, and should be put on the books at cost whenever the lessee pays a lump sum in advance as a premium for the lease. A leasehold may become a very valuable intangible asset to a going concern but a revaluation should not be made and recorded on the books unless it is actually sold. The leasehold should be carried at its original cost or in the case of a purchase, the valuation placed upon it by the vendor through the capitalization of expected income or saving in expenses due to a low rental charge as compared with the rental based on current market prices. In either case, the purchase price is the cost to be amortized pro rata as rent over the period of the lease.

It is desirable that the valuations of intangible assets be shown on the balance sheet in a separate group apart from fixed assets representing physical properties used in the conduct of the business. It is also important to separate patents, copyrights, and similar assets subject to definite methods of amortization from the more general intangibles such as goodwill.

Test Yourself on Essential Points

1. Define the difference between intangible assets and fixed assets. How should they be shown on the balance sheet?

2. A corporation carries on its books an account with patents it has acquired from time to time by outright purchase during a period of ten years. They are still carried at original cost, and it is decided to determine their present value, based upon the expiration of the life of the patents. Describe how you would proceed accurately to secure this result. (From American Institute Examination.)

3. A book-publishing company has brought out its first book. Plates capable of 100,000 impressions cost $20,000.00; composition, proofreading, etc., cost $6,000.00; the author is to receive a royalty of 25 cents per volume on the books sold. As a first edition, 20,000 books are printed at a labor cost of $2,000.00, and a further charge of $1,500.00 to cover the proportion of general expenses. At the end of the year, 10,000 copies had been sold for $20,000.00. How would you prepare the accounts under the following conditions:
   (a) If it were ascertained that the demand for the book had practically ceased?
   (b) If a steady demand would continue until the plates were worn out? (From C. P. A. Examination.)

4. How would you audit the account with franchises?

5. You are auditing the accounts of a company which occupies property, the lease on which has 40 years to run. This lease is carried on the books at $50,000.00. The lease was acquired 10 years ago and is considered to have a realizable value of about $100,000.00. Two years ago $40,000.00 was spent in rebuilding and was charged against earnings. Nothing else has been written off. As auditor, state what plan should be followed by the company and give journal entries. (From C. P. A. Examination.)

Chapter X

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Intangible Assets (Cont'd)

Goodwill explained—Carried at cost—Determining value of goodwill — Normal returns on investment — Profit-making tendencies important—Goodwill and good management—Methods of valuing goodwill—Goodwill not susceptible to depreciation.

Goodwill. Goodwill represents that intangible value to a business by which it is able to attract trade, to keep and increase it and, out of it, make a profit in excess of a normal return on the business investment. Goodwill is therefore not only consistent profit-making ability, but also ability to make profits in excess of certain normal returns on net worth.

Goodwill is a much more intangible asset than patents; but like patents, it should appear on the books at its cost to the business. Accountants generally feel that goodwill should not appear on the books at all unless it represents a purchase from outside the business, although it is frankly admitted that every profitable business develops its own goodwill. But self-developed goodwill is already inherent in the balance sheet, because the resultant profits express themselves in the strength of the current financial position of the business and, of course, in the Surplus Account. It may be said that no goodwill exists at the time, if business profits are only equivalent to a normal interest return on net worth or investment.

Determining Value of Goodwill. A "normal return" on net worth is a variable percentage. Well-established companies that sell staple products may find a return of from 6 to 8 per cent on net worth to be normal, and such a return may warrant a consistent dividend policy. If such companies are able to earn a profit in excess of the normal rate on net worth, this excess is a measure

of the value of goodwill. Highly speculative businesses usually have little if any goodwill, because their profits, as a rule, are not consistent; and there is always danger that the investment itself may become impaired or actually wiped out.

Normal returns on an investment, or on net worth, are determinable only after a particular business has been in operation for a number of years. That is true even though a normal return may be known from other businesses in the same line. A business may hardly be considered as having goodwill even if successful, if it has operated only for a year or two. It may have the elements of goodwill, but it has not yet acquired sufficient permanency to convince a prospective buyer that it has the capacity for continued future excess profits, which is an essential element of goodwill.

The auditor must bear all of these considerations in mind, whether he is representing the buyer or the seller.

Profit-Making Tendencies a Factor. In computing goodwill, it is important that the auditor be not mislead by averages. Averages must be considered, but profit-making tendencies are of greater importance.

Following are the net profits, for a period of five years, of Corporations A and B, both in the same line of business:

Years	Corporation A	Corporation B
First Year	$ 10,000.00	$ 50,000.00
Second Year	20,000.00	40,000.00
Third Year	30,000.00	30,000.00
Fourth Year	40,000.00	20,000.00
Fifth Year	50,000.00	10,000.00
Total	$150,000.00	$150,000.00
Average Annual Profits . .	$ 30,000.00	$ 30,000.00
Average Normal Return .	10,000.00	10,000.00
Average Annual Excess Profits	$ 20,000.00	$ 20,000.00

From these comparative figures, although the same averages are produced, it is at once apparent that tendencies must receive consideration. Goodwill is purchased not only on the basis of past average earnings, but as much or more so upon due consideration of profit tendencies. Where the profit trend in the past has been upward, this indicates a better future prospect than where the profit trend has fluctuated up and down or has been steadily downward, even though the average results may have been the same in both cases. Certainly an upward trend of profits is more an indication of goodwill than are fairly equal profits from year to year.

Goodwill and Good Management. The risk element in business is turned into profit or loss through management. Thus, goodwill is often created by good management. If good management is responsible for goodwill, what is the future excess earning power of a business worth if that management should cease functioning when the business is sold to others?

It must be assumed that good management has created enough excess profits to pay for its own cost, and that it would be fair to deduct this amount from the excess profits. But good management may not be the only factor responsible for goodwill and, in some cases, good management may not be a factor at all. Due consideration must be given to other elements, such as location, trade names, patents, etc. If any or all of these other elements are not available to the purchaser of a business, full consideration must be given to the probable operating status of the business shorn of these advantages.

Methods of Valuing Goodwill. If goodwill is excess profit-making power, how shall the value of this power be fixed?

If a business has been prosperously active for ten or more years, it has become the custom to value the goodwill at five times the average annual excess profits, pro-

vided the excess profits were quite uniform from year to year or showed consistent gains.

Computation based upon the excess profits of the last five years of operation would be fair if the business were already well established five years ago, and if the annual profits were either uniform or rising during this five-year period. For example, Corporation X showed an excess of profits over a normal annual return on its net worth, namely, 8 per cent on net worth, during a period of ten years as follows:

First Year	$20,000.00
Second Year	30,000.00
Third Year	40,000.00
Fourth Year	45,000.00
Fifth Year	46,500.00
Sixth Year	48,000.00
Seventh Year	48,500.00
Eighth Year	49,000.00
Ninth Year	49,500.00
Tenth Year	50,000.00

It is apparent that the X Company's excess profits for the last five years have been consistent and that the company has struck its pace. Again the excess profits in recent years are fairly uniform and indicate a rather steady upward tendency. There is nothing spectacular or irregular in the profit record. It might therefore be safe to say that the average excess profits for these five years should be capitalized as goodwill. This average is $49,000.00, and the goodwill would be figured at five times $49,000.00, or at $245,000.00.

That is one method of figuring the value of goodwill. Some businesses not in existence for ten years or longer might not be able to obtain more than a three-year capitalization of average annual excess profits of a five-year period, and again in many cases the value of goodwill is fixed by bargaining which may or may not have a definite relation to excess earning power. Another method advocated by the Treasury Department in some cases, in order

to fix March 1, 1913, value of goodwill for purposes of computing profit or loss on subsequent sale, is to capitalize the interest rate represented by annual excess profits in relation to net worth or investment. Thus, if the $49,000.00 were capitalized as an interest rate of 15 per cent, the goodwill value would be stated at $326,666.67 ($49,000.00 divided by .15); in other words, $49,000.00 represent an interest return of 15 per cent on $326,666.67.

It may be said, generally, that the longer a company or business has been in successful operation, the greater is the value of its goodwill. Again, the absence of competition is an influencing factor. If a concern has a monopoly of a certain product, controls certain raw materials, or owns patents which give exclusive rights, the determination of goodwill cannot be based upon arbitrary rules. In such cases, the goodwill may be largely merged with patent ownership, and when a sale occurs it is often a sale of both goodwill and patents.

In some cases, especially when mergers or consolidations are formed, goodwill represents merely the difference between the purchase price and the value of tangible properties acquired. Whether or not actual goodwill, as previously defined, exists in such cases, does not seem to be the important consideration, although it may be assumed that very little if anything in excess of the tangible property values would be paid for a business that had a weak profit record. It might very properly be urged that purchases of businesses, at a price in excess of tangible property values, do not necessarily give rise to a goodwill charge, and that the excess purchase price might very well be charged against the consolidated surplus account, in the case of consolidations, whenever it is found that goodwill is not apparent from the earning records of the businesses purchased. The only justification for setting up goodwill, in the purchases referred to, is that of better future prospects and earnings because of the consolidation.

Depreciation of Goodwill. To charge off goodwill would indicate that it is used up in business operations. This is untrue. If it were so written off, a secret reserve would be developed. There might be a strong inclination to write it off year by year, if profits were unusually high, but high profits would be the strongest argument for the retention of the account intact. It would seem, therefore, that, viewed from all angles, a goodwill account should represent actual cost and that it should be retained on the books intact, for it is not susceptible to depreciation and is not consumed in business operations. Whether it has the value at which it is carried will be amply demonstrated by the profit record. The auditor must be certain, however, that the account includes only the purchase price and that the acquisition was regular.

Under Federal income tax laws, regulations, and Treasury Department decisions, depreciation of goodwill is not ordinarily permitted. This is in accord with the accountant's attitude that goodwill cannot be a charge to operations.

Test Yourself on Essential Points

1. When may goodwill properly appear upon the books of a company as an asset?

2. Discuss the propriety of writing off goodwill, giving your reasons in full. (From American Institute Examination.)

3. How would you deal with goodwill in preparing the annual accounts of a company? Comment briefly upon any points which would need special consideration. (From American Institute Examination.)

4. Define goodwill and discuss some methods of valuing goodwill.

5. Point out how good management is a factor responsible for goodwill.

Chapter XI

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Deferred Charges

Distinction between prepaid expenses and deferred charges—Deferred charges classified as to those definite and indefinite in value and period—Bond discount—Organization expense—Promotion expenses and commissions—Discounts on sale of capital stock—Deferred advertising—Deferred selling expense.

Classification of Deferred Charges. We have already noted the distinction between prepaid expenses and deferred charges so far as their position on the balance sheet is concerned. Of course prepaid expenses are also deferred charges, since they are written off against future operations, but let us bear in mind that they have a very definite current value, and are proper elements of working capital. Deferred charges, in turn, are sometimes prepaid expenses, but are generally not considered as part of the working capital.

Deferred charges which should occupy the last place among the assets in the balance sheet are readily susceptible to a dual classification, namely:

1. Definite in value and period.
2. Indefinite in value and period.

A further explanation of these classes follows.

Definite Deferred Charges. Definite deferred charges are those that are of a fixed, easily determinable amount, and that are chargeable against operations during a known period in either annual or more frequent instalments. Bond discount is of this nature.

Bond Discount. When bonds are sold for less than par or at a discount, it is entirely legitimate to write off the discount during the life of the bonds, since it is presumed that the whole period will benefit by this mode of financing. The usual custom is to write off the discount in

equal annual portions. However, if the bonds are retired annually or partially at various times before maturity of the last series, the bond discount may be written off in proportion to the retirement provisions. The auditor must examine the amortization provisions carefully and must adjust the balance sheet so that the correct status of the account may be reflected. If, for example, a company issues $100,000.00 of first-mortgage 5 per cent bonds to be retired at the rate of $10,000.00 per year and these bonds are sold at 90, it would certainly be incorrect to write off $1,000.00 each year, especially in view of the fact that the company after the first year has the benefit of only a portion of the funds provided. The discount may in this case be charged off in proportion to retirement as follows:

	Bonds Outstanding	Fractional Portion of $10,000.00 Bond Discount to Be Written Off	Amount of Bond Discount to Be Written Off
First year	$100,000.00	10/55	$1,818.19*
Second year	90,000.00	9/55	1,636.36
Third year	80,000.00	8/55	1,454.54
Fourth year	70,000.00	7/55	1,272.73
Fifth year	60,000.00	6/55	1,090.91
Sixth year	50,000.00	5/55	909.09
Seventh year	40,000.00	4/55	727.27
Eighth year	30,000.00	3/55	545.45
Ninth year	20,000.00	2/55	363.64
Tenth year	10,000.00	1/55	181.82
	$550,000.00	55/55	$10,000.00

Discount on bonds really indicates a corporation's credit rate of interest or its rate of borrowing power, and is in reality, therefore, an additional interest charge. By writing off the discount annually provision is really made for the effective interest rate, and the charge should be to Bond Interest Account rather than to Profit and Loss. Wherever possible the charge should be made monthly for one-twelfth of each year's portion, in line with a gen-

* Increased arbitrarily by one cent to take up the odd cent necessary to produce an even $10,000.00.

eral recommendation that monthly statements of operations be had in every business.

Every auditor would do well to become familiar with actuarial science and with investment accounting so that he will be fully equipped to deal with any complexities in connection with the amortization of bond discount or bond premium and sinking fund requirements.[1]

Some other definite deferred charges which might be mentioned are Prepaid Royalties, chargeable against sales as the books or services are billed in the future and Prepaid Commissions on goods yet to be delivered, chargeable to the sales as booked, and items that generally represent a fixed outlay definitely chargeable to some determined business activity in the future.

Indefinite Deferred Charges. Most of so-called deferred charges are quite indefinite as to present value, and as to the period of their efficacy in operations. It will generally tax the judgment of an auditor quite considerably to value these assets for balance-sheet certification. Quite often their verbal description on the balance sheet, with the proper comments, will sufficiently notify the reader of the balance sheet as to present and future values. Suffice it to say that a banker or creditor would probably attach no value at all to indefinite deferred charges, and it may not always be possible for an auditor to value them. In that case the auditor's certificate should plainly state that the values shown on the balance sheet are book values. The following are types of indefinite deferred charges:

1. Organization expense.
2. Promotion expense and commissions or discounts on sales of capital stock.
3. Deferred advertising.
4. Deferred selling expenses.

Organization Expense. If there are merely nominal

[1] *Mathematics of Accounting*, by Curtis and Cooper, will be found very useful.

expenses in connection with organizing a business or a corporation, no justification can be found for setting these up as deferred charges to future operations. If, however, it can be demonstrated that the expenses of this character were unusual in amount and that the expenses were of such nature that future operations would benefit thereby, say because of excellency of organization, then it is permissible to spread such expenses over a period of from three to five years. Again, if these expenses were extraordinarily heavy, the effect of charging them all against the first year's operations would distort the Profit and Loss Account.

But let us assume that the organization expenses are being spread over five years in order not to distort the operations of the first or any one year, and we find that the company has during the first year made a net profit equal to the deferred charge for organization expenses for the next four years, could we justify the payment of a dividend out of the first year's net earnings? Legally a dividend could be declared, but one would be inclined to criticize the directors for distributing profits so long as such an intangible and positively valueless asset as organization expense remained on the books.

Would the writing off of organization expense after the first year necessarily distort the Profit and Loss Account? If the profit and loss statement were properly prepared, no distortion would appear, because the net profits from operation could be clearly shown and the organization expense could be deducted as an extraordinary charge. A true comparison of operations could, therefore, still be obtained between the first year and succeeding years. The distortion, if any, would appear in the balance sheet and then only if the inclusion of organization expense would result in a deficit and the deficit were shown as a total. One is inclined to believe that a wise and conservative banker would look with more favor on a balance sheet showing a net profit from operations and a

deduction therefrom for the entire amount of organization expense, although the result might be a deficit, than on a balance sheet which carried the organization expense as a deferred charge. The net worth might be expressed as follows:

Capital Stock		$100,000.00
Add—net Profits from operations for the year	$20,000.00	(Deficit)
Deduct—Organization Expense . .	25,000.00	5,000.00
Net Worth		$ 95,000.00

If, in the same case, organization expense were written off at the rate of $5,000.00 a year, the net worth would show up as $115,000.00, which would hardly reflect the real financial strength or position of the company, especially in view of the fact that the next year might not yield a profit. We are therefore rather inclined to believe that from the standpoint of conservatism, organization expenses should be charged off the first year and in such a manner that the results from operations would not be affected. Only in exceptional cases, then, where the organization expenses actually affect future operations or where the process of organization is long drawn out, is found a real justification in deferring charges of this nature.

It is the auditor's duty to impress upon the executive of any business that his balance sheet should be composed of assets representing real values and of only such deferred charges as truly benefit or affect future operations. An auditor certifies not only to the balance sheet as a statement; he certifies to the values of the items included in the balance sheet. He must be ready to state that, in his opinion, the balance sheet truly sets forth the financial position of his client. No unqualified certificate can be given to a balance sheet containing numerous or large intangible assets, or deferred charges. The business man should realize that the value of an auditor's

certificate is limited by its qualifications, and that a true statement of financial position, even though at times unfavorable, carries more weight with creditors and bankers than one filled with intangible items. This is especially true if the statement shows that results from operations are favorable and that financial position although somewhat less favorable is the result of a commendable and conservative policy to reduce assets to actual and true values.

In analyzing the Organization Expense Account the auditor must make sure that no items included therein represent operating expenses. Cases are common where many charges have been made to this account for regular operating expenses in order that a good showing could be made at the end of the first year or to foster additional sales of stock or securities. In the case of external promotion, the auditor should call for the contract with the promoter in order to assure himself that the company has not paid any of the expenses which the promoter himself was to pay—in fact, that all the stipulations of the contract were properly complied with and that there is no further liability on the part of the company to the promoter. Some promotion contracts provide a share of the annual profits to the promoter for a period of years. Such a liability and its extent must be considered and thoroughly examined by the auditor.

Promotion Expenses and Commissions or Discounts on Sales of Capital Stock. Promotion expenses appear, as a rule, in cases where a corporation employs a promoter to create a market for the company's product, or to secure various kinds of business advantages, such as factory sites, banking connections, or stock underwriters. Then, again, the commissions paid for the sale of stock or the discounts allowed an underwriter may be regarded as promotional in character. Such activities do, of course, indirectly affect the progress of a business and they are, therefore, often deferred. Whether they should appear

on the balance sheet as deferred charges, however, is quite another question.

It does seem somewhat arbitrary and unfair to advocate that promotional expenses be written off as expenses when incurred, but when consideration is given to their very indefinite character as assets, it appears equally unfair and certainly unsound to advise their incorporation as deferred charges in the balance sheet. If carried at all as assets, they should certainly be written off in a very short period, possibly within a year or two.

It may be assumed that such assets would not deceive a banker or any other wide-awake creditor, but an auditor should remember that statements are also made for public use, and in order to attract prospective investors. Many unfamiliar with business facts, might readily be deceived as to assets included under deferred charges, especially when their exact nature is not disclosed and they are merged with other assets, as often happens in condensed balance sheets published for general information. In accordance with best practice, promotion expenses should be written off at once, not in a way to injure the statement showing results from regular business operations, but separately as an extraordinary charge. Conservatism will be best served in this manner.

Commissions allowed in connection with the sale of stock are similar to other promotional expenditures. It is permissible to defer them to the same extent as other such expenditures, but a number of arguments may be advanced against this practice.

They merely reduce the amount of actual cash capital coming into the business, and it is the net capital received that affords the working fund for conducting business operations. A highly successful business would incur very little, if any, expense in selling its capital stock. In fact, such stock might sell at a premium and thus afford additional capital or paid-in surplus. If stock sold at a

premium adds to capital, it would seems that stock sold at a discount, or for a certain commission, decreases the capital fund and becomes the converse of paid-in capital. It is recommended, therefore, that the auditor show discounts on capital stock sold, or commission paid for its sale, as a charge against surplus or as a deduction from the par value of the capital shares issued; thus—

1. If Surplus exists—

Capital Stock................		$500,000.00
Surplus	$200,000.00	
Less—Discount on Sale of Capital Stock..................	10,000.00	190,000.00
Net Worth............................		$690,000.00

2. If No Surplus—

Capital Stock............................	$500,000.00
Less—Discount on Sale of Capital Stock....	25,000.00
Net Worth or Capital....................	$475,000.00

This does not mean that in Case 2, the discount should be charged against the Capital Stock Account, but that it should be shown as a separate Profit and Loss item on the books, but not as an operating expense in the Profit and Loss statement. The charge affects Net Worth, but not the results from current business operations.

Deferred Advertising. Advertising supplies and catalogs which have a definite going or usable value to a business should be included with Prepaid Expenses on the Balance Sheet. They are of current use and value to a business in much the same way as raw materials to be converted into manufactured product, and they represent, as a rule, supplies which conform to a current selling policy only. They are, therefore, absorbed into business operations and create business values currently. They will certainly be considered in price making, a situation which does not always hold true of the items included in Deferred Charges, many of which are, as we have seen, costs of securing capital or of more intangible activities.

The auditor will find, however, that the Deferred Advertising Account, will often include items which are not inventories of advertising supplies but actual expenses covering services, publicity campaigns, distribution of samples, traveling, and numerous other expenditures which are being deferred because their benefits are to accrue at a future time. The greatest care must be exercised by the auditor in inspecting this account. Sometimes when an audit is made at a time considerably beyond the date to be covered by the certificate, the results from the expenditures deferred can be fairly well determined so that a much better estimate of the deferred values can be formulated.

Current newspaper and magazine advertising cannot be considered as a deferred charge. However, a special campaign conducted by a firm or through an advertising agency would entail heavy expenditures, the results of which could not possibly become evident until some future date. Expenses of this nature may very justly be deferred and subsequently charged against the revenue they are to produce. The auditor should recommend, however, that deferred expenses of this nature be written into operations as quickly as possible, since they are at best very elusive and uncertain assets.

Deferred Selling Expenses. In quite a number of industries, the great bulk of selling expenses precedes by a considerable period the delivery of the product. This condition exists wherever production or sales are seasonal, and it is quite justly felt that the period of deliveries or sales should be burdened with the selling expenses producing the sales. If expenses of this kind are deferred at the end of any fiscal period, the auditor must make sure that a similar procedure was followed at the beginning of the period, so that the selling expenses included in the period may be correctly stated.

A number of points must be considered well in passing

judgment on the validity of treating a portion of selling expense as a deferred charge. These may be tabulated in question form as follows:

1. Was all the deferred selling expense incurred to secure orders for future delivery, or was part of it incident to securing current orders?
2. How many of the orders will be canceled?
3. How much of the expense was really productive?

It is somewhat difficult to divide a salesman's time and expense between efforts expended to secure orders for immediate delivery and orders for future delivery. Again, the orders for future delivery may be incidental to his regular activities of securing current business, especially if, for promotional and publicity purposes, he is kept on the road constantly. Probably the relative volumes of current and future orders obtained is the best method for distributing the expense. But can the entire portion so determined and so applicable to future deliveries be deferred? May not some of the orders be valueless in that they may be canceled? To answer this question the auditor should determine the percentage of cancellations to orders booked for a period of years, and he should deduct that percentage, if it has not already been done, from the portion of selling expense deferred.

Selling expenses, other than for traveling, if incurred in connection with obtaining orders for future delivery, may legitimately be deferred. Here again, however, we are confronted with the possibility that these expenses may or may not be productive, as only the results at some future time can give definite information on this subject.

Where sales are fairly normal from year to year, and no extraordinary selling campaigns are inaugurated, the auditor should discourage the practice of deferring selling expenses. In such instances the expenditures would run on a fairly uniform basis, and much of the needless work of proration between periods could be eliminated.

Whatever expenses are deferred, should be charged off

as deliveries are made. This implies, of course, considerable statistical work, in that the deliveries must be checked off against the orders previously taken for future delivery and the deferred expenses credited, in proportion as deliveries are made. The sales manager should be held responsible for furnishing these statistics because the information yielded by them is of considerable value to him and will verify or disprove the established averages for cancellations. They will further prove to him the effectiveness of the selling expense outlays for special campaigns through the mail orders he receives in consequence of such campaigns.

The auditor must again be cautioned to view Deferred Selling Expense with a highly critical eye. Its value in a statement of assets is a very dubious one and would carry practically no weight with a banker, a creditor, or even a stockholder, unless perfectly established as entirely valid. The auditor's report should contain a very concise résumé of this deferred item, so that nothing would be left to the imagination. Items of this character have no place in the balance sheet unless established as an asset beyond the slightest possibility of doubt.

Test Yourself on Essential Points

1. How should deferred charges be classified?
2. Define definite and indefinite deferred charges.
3. Explain how you would verify the amount of bond discount that should be carried as a deferred charge.
4. At what point do expenses cease to be organization expenses and become operating expenses? (From C.P.A. Examination.)
5. How should discount on capital stock be treated on the balance sheet?

Chapter XII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Notes and Accounts Payable

Classes of notes payable—Notes given for loans—Procedure in verification—Notes given in payment of other obligations—Accounts payable—Steps in the audit of accounts payable where accounts payable ledger is used—How to make sure of determining the existence of all liabilities—Voucher-system audit.

In the audit of assets, the values placed upon them depend largely upon estimates, and estimates are based upon the exercise of judgment and opinion of the accountant guided by the most accurate principles and methods. The element of opinion is not such an important factor in establishing values of liabilities, because most liabilities are definite in amount. For a going concern they must be paid in full. The chief difficulty, for the auditor, therefore, is to ascertain their exact value and to be sure that all existing liabilities are properly stated on the balance sheet. The auditor should not assume that all liabilities are recorded on the books. He must go to all available sources to discover whether there are any other liabilities other than those recorded on the books. In the following discussion the means of determination of all the common classes of liabilities will be considered.

Notes Payable. Notes are given either in evidence of loans made from banks or others, or in payment for commodities, services, or contracts. The auditor should therefore schedule notes payable under the following two classes:

1. Notes given for loans:
   (a) From banks.
   (b) From others.
2. Notes given in payment of other obligations covering:
   (a) Purchases.
   (b) Contracts.
   (c) Services.

It might be advisable to suggest a third class, viz., notes given by the company to its officers or employes. At any rate, whether or not these are put into a separate class, they require very special and thorough examination.

Notes Given for Loans. These should be scheduled in two groups, namely:

1. Loans secured.
2. Loans unsecured.

They should be listed in the following manner under these two groups:

1. Date of note.
2. Creditor.
3. Due date.
4. Rate of interest.
5. Amount of note.
6. Interest accrued to date of audit.
7. Prepaid interest (if discounted) at date of audit.
8. Extra indorsers.
9. Renewal or original.
10. Collateral given as security (for Secured Loans).

Statements from the creditors should be furnished to the auditor direct, and these statements should show the details listed in the auditor's schedule. In requesting the client to furnish him with the statements from the creditors, the auditor should see that the letters addressed to the creditors call specifically for a list of any collateral deposited with the loans. The auditor's certificate or balance sheet must indicate clearly what assets of the client have been hypothecated. All loans must be investigated further through the client's minute books, where the board of directors' authorizations should be found or where the general provisions empowering some official to make loans up to certain amounts could be verified.

All noteholders should be circularized. The statements received from them should then be compared with the loans or notes scheduled on the books and, of course,

with the auditor's own list. Any discrepancies should be ironed out immediately. The cash-receipts record must be scrutinized for every loan made during the period under audit, whether outstanding at the end of the period or not. Cash or an equivalent must offset the entry for every note payable. The canceled notes for previous loans or payments should be demanded by the auditor. These notes must be clearly canceled so that their negotiability is fully destroyed. Where such canceled notes are not produced for inspection, the auditor must cover himself by stating that fact in his report together with an explanation of the deficiency from some responsible official.

Wherever notes-payable registers are kept, the balances shown therein must first be compared with the creditor's statements and then with the general ledger controlling account. Where notes are used extensively, the auditor should suggest a note book wherein all notes are numbered and stubs or carbons are used to duplicate the notes. Under such a plan, all canceled notes should be pasted on the stubs. The open stubs must then agree with the note register and the general ledger controlling account. The canceled notes should be compared with the stubs so that assurance may be had that the stubs and notes are in agreement.

Any alterations on either the stub or the note after cancellation should be very carefully investigated and traced to the cash records of receipts and payments, or to whatever accounts were affected by the making and payment of the note. If a note book is provided wherein each note has a number, then, of course, every number must be accounted for by a note still out, a note canceled, or a note spoiled (which should be pasted on its stub). Wherever a numbering system is in use, the note number should be called for when circularizing the creditor.

A concern sometimes finances itself by either selling its notes to a broker or by having the broker sell the

notes to other investors or banks. The broker should be requested to furnish a certificate to the auditor for all notes purchased outright and held or, in case the broker sold the notes to others, he should report on the notes sold and the notes still in his possession. In any event, the proceeds must be traced into the cash-receipts record by the auditor, and any unsold notes from which no proceeds were derived must be listed. These latter may be entirely disregarded and, therefore, not included in the balance sheet, or they may be shown as liabilities offset by a charge to the broker. Notes sold by brokers should bear interest from date of sale and not from date of note. The interest account must, therefore, be carefully checked and all accrued interest set up in the accounts.

Many loans are made through demand notes. In such instances, as a rule, interest is paid monthly. The auditor, however, must assure himself that such interest has been paid regularly or else he must schedule the accrued interest to the date of the audit; he must, of course, also schedule any accrued interest on demand notes since the date of the last interest payment.[1]

Notes in Payment of Other Obligations. Notes given in payment of other obligations should be carefully investigated. Notes given in payment of contracts or purchases can be verified from the correspondence files and by certificates from the holders. If the correspondence file yields sufficient evidence of the validity and nature of the liability, no certificate should be demanded. The latter course sometimes is misunderstood by the holder. The auditor should make it a point to determine why notes are given in payment of purchases. Either the procedure may be perfectly normal where large quantities are purchased (often as an accommodation to the vendor or to secure low prices), or it may indicate financial weakness. If there is any degree of suspicion that the latter condition exists, the auditor should investigate

[1] The subject of accrued interest will be more fully discussed later.

the paying ability of the client generally. The results of such an investigation may reveal that there really is no financial weakness, but an improper provision for working capital.

In this connection the auditor might render some valuable assistance by preparing for his client a comparative balance sheet and draft therefrom an "application-of-funds" statement which will clearly indicate the sources and uses of funds and the causes for shrinkage of working capital. A business may be financially strong and yet unable to liquidate properly its current indebtedness. If it invests too heavily in fixed assets, its working capital is affected. There should be a certain proportional relation between fixed assets and current assets, so that the latter will be sufficiently strong to carry the expenses associated with the former. There must also be a limit to current liabilities carried by the current assets. A thorough study of the tendencies of indebtedness and the relation thereof to paying ability should enable the auditor to throw much light on the financial position of his client and the underlying causes of that position.

Notes given in payment for services are generally indicative of weakness. This statement may not hold with reference to closed corporations, wherein officers may be willing to permit their salaries to remain with the company either to assist their colleagues temporarily or to be exchanged for an additional block of capital stock later on. In usual cases, however, services should be paid for promptly by check or cash. The character of all notes given for services of any kind should be fully uncovered by the auditor and the recipients of the notes should be requested to state their side of the case. Notes of this kind should be so completely investigated that no suspicion as to their meaning should remain in the auditor's mind, and they must in every instance be related to the client's paying ability. The same care must be exercised in an investigation of notes of every description and char-

acter (whether for services or not) given to officers and employes of a business.

Accounts Payable. The audit of Accounts Payable will vary according to the systems of accounting used by various companies. These are of two kinds:

1. When an accounts payable ledger is used.
2. When a voucher system is in use and the accounts payable ledger is dispensed with.

Accounts Payable Ledger Audit. Wherever accounts payable ledgers are kept, the first step in the audit of Accounts Payable should be the verification of the balances in the accounts and a comparison of these with the accounts payable ledger trial balance. The trial balance total must then be compared with the general ledger controlling account—if such a controlling account is kept. The second step embraces the analysis of the accounts and the exclusion therefrom (if necessary) of any accounts which are not strictly accounts payable, or of any debit balances representing charge backs, overpayments, etc. Debit balances in the accounts payable ledger should be included with the receivables on the balance sheet. Analyses of the Accounts Payable are made with two objects in view:

1. The determination of the age of the accounts.
2. The elimination from the accounts of all items that are not liabilities to trade creditors or for contracts.

The auditor should inspect all accounts and inquire very carefully into their character. If they are past due and not in dispute, the past-due accounts should be separately stated in the balance sheet of the auditor's report. If they are in dispute, the reasons for this status should be made clear. Any doubtful or irregular items should be ironed out by obtaining a certificate or letter from the creditor. Reference to the correspondence files sometimes proves of considerable value, and the statements from the creditors should be compared with the balances. This

latter comparison may reveal the fact that all liabilities have not been included.

Procedure to Account for Liabilities. To assure himself that all liabilities have been included in the accounts, the auditor should do the following things:

1. Examine the minute book of the company: Liabilities may have been assumed by the board of directors which were not entered in the books or which, for the sake of policy it would have been unwise to enter in the books for fear of making a confidential matter common property. Nevertheless the auditor must include such liabilities in his report.
2. All bills or invoices from vendors or creditors not entered should be examined, as some of these might apply to the period audited.
3. All entries of bills made subsequent to the period under audit must be examined, as a number of these may belong to the prior period audited. This examination must be intelligent and somewhat tolerant, because investigation generally shows that the amounts thus entered subsequent to the closing of any fiscal period appear in all fiscal periods. Thus an auditor examining the accounts of a company for a calendar year may find a number of December bills for telephone or telegraph service, expressage, cartage, etc., entered in January of the following year. He must not arbitrarily conclude that these accounts must be thrown back, because if he goes a little farther, he will probably find that the January of the year he is auditing contains about as many charges applicable to the year prior. Judgment must therefore be used in adjusting the Accounts Payable. Small, unimportant items may be disregarded, but any account of consequence must always be considered with this additional advice—that if the auditor insists on adjusting the Accounts Payable fully, it is better to include all of the liabilities, no matter how small, and adjust the accounts of the year prior, than to omit a single important item because of the tendency to believe that the liabilities between years run fairly uniform.
4. Bills covering goods in transit should ordinarily be set up as Accounts Payable and the goods themselves included on the balance sheet as inventory in transit. The object of the balance sheet in an auditor's report is to set forth truly the financial position of the client. Therefore, all liabili-

ties of the character just described must be included, even though the goods have not yet been received.

5. Sometimes there are liabilities for goods sold on consignment, as consignment accounts are often carried in memorandum form only. The full liability to the consignor should be included in the Accounts Payable if the goods have been entirely sold, and separately indicated as a liability to consignor if partly sold. Since the former represents a completed transaction, the liability is the same as to a trade creditor, whereas the latter case presents an account in formation and should therefore receive a separate designation.
6. As a final precaution, the auditor should obtain a certificate from the proper official of a company stating that all liabilities for purchases, expenses, contracts, etc., have been included in the books of account and that there are no claims, law suits, or liens registered against the company.

Voucher System Audit. A large number of progressive firms have adopted voucher systems in connection with their Accounts Payable. Where these exist, all liabilities are entered in the books as incurred and the verification of the Accounts Payable is much simplified. But even here it is necessary to make certain that all goods received on the last day of the period audited, as shown by the receiving clerk's records and all goods in transit, are not only properly included in the assets, but in the liabilities as well. These items, because of certain delays in internal checking, might readily be omitted from the voucher register. Of course, the voucher register for the month or several months after the period under audit, should be searched for any items properly belonging to the prior period.

Where the voucher system is in use, we rarely find accounts payable ledgers. They are unnecessary because the file of unpaid vouchers is in itself the equivalent of a ledger. Moreover, the balances drawn up from the unpaid voucher file must agree with the unpaid items on the voucher register and with the general ledger controlling account for vouchers payable as well.

In verifying the latter account, the auditor may follow one of two courses, he may list the open unpaid items from the voucher register, comparing the total thereof with the controlling account, or he may make an independent list of the unpaid vouchers from the unpaid-vouchers file and compare the totals thereof with the controlling account. Either method should give the same result, and if the auditor is very conscientious he may first prepare the list from the unpaid-vouchers file, compare this with the unpaid items in the voucher register, and then finally check his totals against the general ledger controlling account.

Test Yourself on Essential Points

1. How would you deal with the company's notes payable indorsed by an official of the company in auditing a balance sheet as at June 30, 1938, to be certified by you? (From C.P.A. Examination.)

2. A corporation issued its note for $30,000.00. The note became due during the term which you were auditing. A note for this amount, corresponding in all particulars with the note record, is submitted to you as evidence that the amount has been paid. Said note is marked "paid," but does not bear the signature or paid stamp of the bank to whom it is purported to have been paid. The treasurer asserts that possession by the corporation of this note is sufficient evidence of its payment. State (a) Your opinion thereof. (b) Your reasons. (From C.P.A. Examination.)

3. To what extent would you consider it necessary to verify the notes payable, and what reference to such verification would you make in your report? (From C.P.A. Examination.)

4. To what extent should an auditor hold himself responsible for the correctness of notes payable? (From C.P.A. Examination.)

5. State definitely the procedure you would follow in verifying the liability of a corporation on account of notes payable as shown by its books. (From American Institute Examination.)

6. An auditor is engaged by a man who is buying an interest in a firm for the purpose of reporting upon the assets and liabilities of the firm as at a given date and upon the profits of the three years just prior. Upon the auditor's report, he purchased an interest in the firm and in its assets and liabilities. Six months later it is discovered that there were bills payable due by the firm amounting to $10,000.00, at the time the auditor made his examination and

not reported upon by him and that these bills had continuously been due by the firm for one year prior to such examination, but no record of same had been made upon the books. Under what circumstances could the auditor be considered guilty of negligence in not discovering this fact and under what circumstances could he be considered entirely free of any blame in the matter? (From C.P.A. Examination.)

7. Point out what you would like to find by way of system that would simplify the task of satisfying yourself that all outstanding liabilities of a business are properly taken up in the balance sheet. (From American Institute Examination.)

8. On February 15, 1938, you are called upon to audit the books of a concern for the calendar year 1937. State in detail how you will verify as of December 31, the balance-sheet items of accounts payable? (From American Institute Examination.)

9. In an audit covering the year ended December 31, you discover that invoices aggregating $2,000.00 for bricks and other building materials to be used in the construction of an addition to the plant, were received after the books were closed, although the materials were actually received on December 15. As the materials were not taken into the inventory and the invoices were not on the books, would you require any adjustment? Give reasons. (From C.P.A. Examination.)

Chapter XIII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Accrued Liabilities

Accounting on accrual basis—Methods for auditing accrued interest, wages and salaries, taxes and sundry accrued accounts—Discovering liabilities by examination of minute book—Dividends payable.

There are few concerns to-day that do not keep their accounts on the accrual basis. Income is no longer considered synonymous with cash received, and expense is no longer confined to expenses actually paid. Income consists of the earnings of a business growing out of a period of operations irrespective of collection and independent of the Cash Account. To put it more clearly, income accounts are credited for all values leaving a business in the form of sales, services, etc., without any regard to the Cash Account. Some of the sales may be cash sales, but that is merely a coincidence of cash receipts and income and in no way affects the principle just laid down. Expenses consist not of expenses paid but of all expenses actually incurred in obtaining income or in connection with the operation of a business during a designated period.

Accounting on Accrual Basis. The first development in accounting on the accrual basis came with the establishment of Accounts Receivable and Accounts Payable. The use of these accounts in even single-entry bookkeeping injected an accrual element into accounting, so that when profits were figured on the basis of comparison of assets and liabilities, the results of operations were revealed on an income and expense basis rather than on a mere cash basis. By giving effect in the comparative statements of assets and liabilities, personal accounts charged and credited were considered, and not cash receipts and disbursements. One can readily see that if a correct inventory were taken under a single-entry system, so that all

assets and liabilities would be expressed (including deferred charges and accrued items), the profits established by a comparison of such actual inventories between two dates would necessarily include (whether intentional or not) the results of operations on an accrual basis.

In modern double-entry bookkeeping, we no longer consider Accounts Receivable and Accounts Payable as accrued accounts. We think of accrued accounts as accumulating assets or liabilities which are collectible or usable, and payable or due, respectively, at some future time, even though the portion accrued to the end of a certain period represents an asset or liability at that date.

Under accrued liabilities in modern accounting we find the following accounts:

1. Accrued interest.
2. Accrued wages and salaries.
3. Accrued taxes.
4. Sundry accrued accounts.

Accrued Interest. Accrued interest is a liability concomitant to other liabilities or superimposed thereon. Thus the partial liability for monthly interest on an issue of bonds, which is payable on a later date, represents the accrued interest on those bonds. It is here in the strictest sense of the word an accumulation liability from last payment of interest to the next payment, so that if an audit covers a period ending between two such interest-payment dates, the accrued interest is that accumulated liability from the date of last interest payment to the date at the end of the audit period. The same accrued liability would exist at a certain date between interest-payment dates on loans from banks and on any other interest-bearing obligation.

In most modern accounting systems, provision is made whereby the accrued interest is recorded monthly. Under such conditions it is the auditor's duty to verify the accrued liability thus constructed. In quite a number of cases, however, the auditor will find that the accrued

interest has not been taken up in the books, and it then becomes his duty to construct the account and to recommend its inclusion in the books. He must be on guard, however, with reference to the procedure at the beginning of the period he is auditing. If he sets up the liability at the end of the period and charges interest expense, he must eliminate that portion of interest paid after the beginning of the period which represented an accrued liability of the period prior to the audit.

Accrued interest liability will, as a rule, be found in connection with long-time loans or loans running beyond the period covered by the audit where such loans are interest-bearing. Discounted loans, of course, if over thirty days' maturity or if extending beyond the period under audit, give rise to the Prepaid Interest Account discussed heretofore. The interest on demand loans is generally paid at the close of every thirty days. Therefore any accrued interest on these will usually represent the partially expired portion of a thirty-day interest period. Accrued interest on bonds can readily be figured, and represents the liability since last interest payment. Here the auditor must make sure of his accounts by examining the redeemed coupons to determine the last coupons clipped. If the bonds are not coupon bonds, the auditor must satisfy himself that all deposits up to and including the last interest-payment date in the period, for interest due on the bonds, have been made with the trustee or the interest-paying agent and that the Interest Expense Account has been properly charged. The accrued liability, if any, will then represent the interest payable, but not yet due from the date of the last interest deposit. The interest deposits with a trustee should be offset by the coupons presented, paid, and canceled, or by the receipts from the investors obtained through and from the trustee when the bonds are other than coupon bonds. Any balances remaining with the trustee should equal the sum of the coupons outstanding and unpaid. The hold-

ers of these should be circularized, if possible (where registered), and should be requested to cash them.

The accrued interest liability should be constructed by the auditor, or verified by him (if already on the books), in connection with the basic liabilities on which the accrual rests— i.e., in connection with the examination and scheduling of the notes payable or bonds payable. The determination of the accrued liability is entirely dependent upon the information obtained from the basic liabilities. The bank or the holder of a note should be asked to furnish information on the amount of interest accrued in connection with the certificate covering the loan proper.

Accrued Wages and Salaries. Whenever the voucher system is in use and a voucher register in operation, accrued wages and salaries are as a rule included in the accounts and form a part of Vouchers Payable. For purposes of balance-sheet construction it is desirable, however, for the auditor to separate the Vouchers Payable into regular creditors' accounts and the various accrued accounts so that each may stand out distinctly.

Where no voucher system is in vogue, it sometimes becomes the auditor's duty to set up the liabilities for accrued wages and salaries. As an audit is started subsequent to the payment of wages or salaries chargeable to the period under review, there should be no difficulty in determining the amount of these liabilities accrued at the end of the period. It is sufficient if this be done on a fractional basis rather than by reference to each individual time card. Thus, if four days of a weekly pay roll had accrued, it would be satisfactory to take four-sixths of the entire pay roll paid unless some unusual condition surrounds the case in question; if, for example, the week ended with a Saturday and the men worked until Saturday noon only, then the pay roll should be split on a fractional basis of hours instead of days.

The auditor must again be cautioned that if he sets up

an accrued liability for wages and salaries at the end of the period, he must assure himself that the accounts reflect the same adjustment at the beginning of the period.

In setting up a liability for accrued salaries, the auditor must include not only the salaries of officials and clerks but also any salaries due in part to traveling salesmen or agents.

Accrued Taxes. Accrued taxes can be determined from the last tax receipt covering the taxes for the period prior to the one under audit. This tax receipt should furnish a correct basis for estimating the taxes for the period audited, and unless additions to property have been made before the assessment date or the rate changed, the tax should be the same. If additions were made which were assessed, the amount of the assessment can readily be determined through the local taxing body. Changes in rates can be learned in the same way. A concern keeping its books on a monthly basis should set up each month's tax accrual, thereby automatically building up the entire liability at the end of the year and to that extent stating its monthly expenses properly.

Whenever monthly profit and loss statements are prepared, the plan can be so extensive as to include not only property taxes but the Federal income tax as well. The Federal income tax so accrued on monthly net profits should be deducted from the net profit on the profit and loss statement and not in any way considered as expense in the same way as a real estate or personal-property tax. Under the Federal Tax Laws the Federal income taxes actually paid cannot be deducted as expenses in making out the Income Tax returns State income taxes and all other state taxes actually paid are deductible.

Before setting up the amount of accrued taxes, the auditor must satisfy himself that all taxes for years prior to the one being audited have been paid. This can generally be accomplished by an examination of the tax

receipts, which as a rule indicate the year for which the taxes were paid; if they do not, a trip to the tax-collector's office will be necessary.

It is also necessary to determine whether any tax liability to the Federal Government exists, representing additional assessments for prior years. These assessments may be disputed by the client, but the auditor should nevertheless see that a proper reserve be created out of Surplus to meet the contingency, if it arises. Such a reserve may be carried as a Surplus Reserve, that is, as appropriated surplus.

Sundry Accrued Accounts. Often certain accrued liabilities are entirely overlooked by a number of concerns. If they are consistently overlooked year after year and run fairly uniform as to amounts, the operating expenses will not be visibly affected. If, however, they vary radically from year to year, the results from operations will be affected. The solution is to include all these liabilities at the end of every period, whether they vary from year to year or not. Under this class of accrued liabilities often omitted, are traveling expenses, sales commissions, legal expenses, damage claims, and declared dividends.

The auditor should secure a list of all traveling salesmen and should then obtain the expense reports paid just subsequent to the close of the period under audit. These reports will clearly reveal the amounts accrued, if any, at the end of the period. If the accrued portions were not entered on the books and are of sufficient amount, the auditor must provide for the liability and adjust his statements accordingly. If the amount be small, no adjustment need be made. Commissions payable on sales must also be taken into consideration, but the practice of the client as to payment of these must first be determined. In some companies commissions are not payable until the customer has paid his account. If this be the case, the commission should nevertheless be accrued, since it is a charge against the profits derived

from the sales included in the period. Other concerns pay commissions as soon as goods have been shipped and billed, and the liability must be set up at that time.

Examining Minute Book. Lawyers are proverbially slow in sending their bills, and before a true statement of liabilities can be constructed the auditor should make sure that all legal bills have been received, or he should request that such bills be presented, showing the charges to the end of the period he is auditing. Often evidence of litigation appears only in the minute book; hence a careful perusal of the minutes is necessary. In fact, the minute book should be carefully examined with regard to many other matters, and copious notes made of its contents so far as the operations, expenses, income, assets, and liabilities of the concern are affected. In the minute book, too, there may appear evidences of liability for damage suits not covered by insurance. The papers and legal opinions in connection with such suits should be carefully inspected and the proper accrued liabilities or reserve set up. If it appears that a certain amount is clearly conceded by the attorneys, then the liability should be stated as an accrual. If the case is not clear and the outcome doubtful, a proper reserve should be constructed.

Dividends Payable

Dividend declarations also appear in the minute book, and whenever a dividend is declared the books should register an entry charging Surplus or Undivided Profits and crediting Dividends Payable. A dividend declared, in the eyes of the law, is an account payable, and should be recorded as such. It must not remain as part of the Surplus Account or the net worth of the company will be misstated. Consequently all dividends declared, even if on the last day of the company's fiscal year, must be shown as a current liability and thus reduce the net worth to the extent of the dividend.

Test Yourself on Essential Points

1. What is the significance of the item on the liability side of the balance sheet, "wages or other expenses accrued?" (From American Institute Examination.)

2. Name three accrued liabilities which an auditor might reasonably expect to find in connection with almost any audit engagement and explain how he would ordinarily verify the amount of each.

3. Give in detail a method for verifying the payment of interest on coupons from bonds of a company you are auditing, and state how proof of such payments should be presented to you. (From C.P.A. Examination.)

4. State how you would satisfy yourself that all outstanding liabilities of a business are properly taken up in the balance sheet. Point out what you would like to find by way of system that would simplify this task. How would you indicate on the balance sheet as of December 31:

   (a) Preferred dividend (cumulative) due November 1 not declared.

   (b) Ordinary dividend for the year, declared the following January 22.

   (c) Ordinary dividend declared December 30, payable February 1? (From American Institute Examination.)

Chapter XIV

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Reserves

Nature of reserves—Main classes—Reserve for depreciation—Depreciation rates—Object of charging depreciation—Methods of figuring depreciation—Fixed percentage on original cost—Fixed percentage on diminishing values—Formula—Other methods—Providing adequate depreciation reserves—Effect of excessive depreciation.

Reserve Accounts. Reserve accounts are not liabilities. They are ordinarily either valuation adjustments to assets or surplus reserves. So far as they are valuation adjustments, they should be deducted from the proper assets in the presentation of the balance sheet. Thus a reserve for doubtful accounts is merely a means of indicating by deduction the estimated real value of the Accounts Receivable. Some accountants prefer the term "provision" in place of "reserve," but from a standpoint of accuracy neither term is really descriptive of the nature of these accounts. They are in reality and in most instances valuation adjustment accounts. Thus, the so-called "reserve for depreciation" represents nothing more nor less than the estimated shrinkage through use of certain fixed assets, the shrinkage having been charged into operations as a current cost. The reserve for depreciation itself does not carry with it any reserve power to restore ultimately the wasting asset. The reserve merely shows the credit side of the shrinkage which has been charged into operations. The charge to operations and the consequent inclusion of that charge in the sales price is essential to the asset's final restoration.

The main classes of reserves encountered by the auditor are:

1. Valuation reserves, or reserves against asset valuation, such as: reserves for depreciation, depletion, and amortization; also reserves for bad and doubtful accounts, discounts;

reserve for cost to complete contracts; reserve for inventory valuations.

2. Appropriations of surplus for specific purposes.

Reserve for Depreciation. The Reserve for Depreciation is strictly an adjustment to estimated real value of property accounts and is, therefore, a valuation account and not a liability. It is of vital importance that the auditor pass carefully on the rates of depreciation used. Also, he must relate the amount of depreciation to the amount expended for repairs. It is very evident that any equipment well maintained and kept in good repair will outlive similar equipment which is not kept up. Repairs, of course, cannot cancel depreciation, but repairs do make depreciation normal. When, therefore, a machine is estimated to have a useful life of ten years, the presumption is that it will last ten years if kept in proper repair.

Sometimes it is difficult for an auditor unfamiliar with machine construction to pass proper judgment on depreciation rates. He must be guided, in that event, by his own experience, by the reports of engineers, by the past experiences of his client as reflected through the accounts, or by the estimates of appraisal companies if any are available. Again, an auditor must closely scrutinize the repair accounts, for he may find therein charges for renewals and replacements which will compensate for seemingly low depreciation rates.

The auditor should strive to obtain, as best he can, the most reliable statistics on the estimated life of the various types and classes of property of his client and from these should construct the depreciation rates and amounts which he deems ample to provide fully for the eventual rehabilitation of the properties. In a first audit this may mean a great deal of detail work. It may mean the establishment of a rate for each piece of property, equipment, and machinery, but after this work is all completed, a flat rate for each group of assets can readily be fixed for future use and for the benefit of the client. It should

always be borne in mind that depreciation is a purely estimated expense and yet, in order to reflect truly the financial position of a company or the results from operations, the estimate must be as closely accurate as possible. No time or trouble should be spared to make it so.

Fortunately the United States Government, a number of state public service commissions, and some of the large engineering firms have made quite exhaustive research on this subject. Some of their conclusions can be regarded as authoritative wherever normal conditions prevail. Rates of depreciation on various types of buildings and various classes of equipment and machinery, proposed by the above-mentioned authorities, are based upon quite thorough examinations and extensive experience.

The auditor often encounters strong opposition to his recommendations as to depreciation. Sometimes this opposition is fostered by a lean year as far as profits go, and at other times by an absolute lack of understanding of the nature of depreciation. In both cases one will find that the management does not regard depreciation as a current expense forming a part of operating costs which must be included before real profits are determined, but as an element outside of regular operations for which a portion of profits must be set aside. Viewed from this angle, if so-called "profits" are small, there is a strong temptation to disregard depreciation entirely. The real gist of such a condition is that because the management disregards this element of cost as a current operating expense, it is almost imperative that it be disregarded at the end of a fiscal year if a profit is to be shown.

In reality the status of small unreal profits or possibly an actual loss is brought about by the noninclusion of depreciation in current costs, thereby also excluding it from the sales price upon which the profit is based. The object of all business is to return to the proprietor, whether individual or corporate, all the expenses of con-

ducting a business, the costs of materials used or sold, the interest on borrowed capital, and a profit besides. There is only one way in which these outlays, expenses, and profits can be returned and that is through sales. Therefore, they must all be included in the sales price. If they are not and one is blinded to the fact that an expense like depreciation is a real expense, then usually the profit of a concern will be smaller by an amount equal to the depreciation omitted.

The main object of charging depreciation currently into operations is the preservation of capital investment intact. Buildings, machinery, and operating equipment are all exhaustible. Their exhaustion through use is depreciation. Capital assets are therefore merely long-deferred charges to operation and do not differ in nature from other deferred charges; the only difference is one of time. To charge for the exhaustion of property currently, therefore, insures the necessary funds whereby the original investment in property may be fully restored. The inclusion of depreciation in costs and therefore in sales price, returns the capital in cash and thereby makes the replacement of properties possible.

The importance of charging depreciation into operations is always very evident to a bondholder or mortgagee. If funds are provided for the restoration of exhausted properties, and these funds are used from time to time for such restoration, the security behind a bond issue or mortgage remains unimpaired. If such provision is not made, the security may be worthless when the bonds become due, and no funds will be available to counteract the loss in value of the security. Where there are no bonds or mortgages, the stockholders suffer whenever depreciation is not considered. The net worth of the company will be decreased even if the books do not show it.

Methods of Figuring Depreciation. There are several

methods in use for figuring depreciation. The most common of these are:

1. The fixed percentage on original cost.
2. The fixed percentage on diminishing values.

Fixed Percentage on Original Cost. Under the first method, the estimated life of the property is determined, the scrap or residual value deducted from the cost, and the remainder divided by the number of years the property is expected to last. Thus, if a machine costing $100.00 with a scrap value of $10.00 will last ten years, one-tenth, or 10 per cent of $90.00, will be charged each year to depreciation.

Fixed Percentage on Diminishing Values. The second method is based on the assumption that repairs to property increase with its age and that, therefore, to equalize the entire upkeep charges, the earlier years should bear the heaviest depreciation, the repairs being very light during those years. This assumption would be correct if a piece of property or a machine were permitted to waste away naturally. In reality, however, replacements and restoration are not delayed until final decay. Properties are being rebuilt and machine parts replaced constantly, so that repairs may be no larger the last year than the first. In fact, the property may have been entirely restored at the end of its originally estimated life. Restoration and replacement must be current in order to make machinery and buildings efficient. If they were permitted to depreciate and the reserve for depreciation were not drawn upon until the estimated life had been ended, the plant or factory would probably be working at about 30 per cent efficiency or less for a number of years.

Advantages of Each Method. The fixed percentage on original cost method is therefore probably more effective than any other, especially in view of the fact that repairs do not necessarily increase with the age of equipment,

since in practice restorations and replacements being made constantly tend to equalize repairs. The added advantage of this method is its simplicity, which is especially noticeable in connection with detailed cost systems where it is important not to change rates frequently merely for some theoretical consideration.

The fixed percentage on diminishing value method is, however, a fairly simple method. It places the heaviest amount of depreciation on the early years, the assumption being as heretofore indicated that repairs increase from year to year and that therefore the sum of depreciation and repair charges each year will be fairly constant. From a mathematical standpoint there are no difficulties in applying this method. It is necessary only to find the rate which, when applied against each diminished balance at the end of a fiscal period, will write off the asset during its estimated life.

Formula for Diminishing Value Method. The formula is as follows:

$$x = 1 - \sqrt[n]{\frac{a'}{a}}$$

a' = the salvage value
a = the total cost
n = the life in years
x = the percentage required

Thus, for an equipment costing \$243.00 with a salvage value of \$32.00 and an estimated life of five years, we would have

$$x = 1 - \sqrt[5]{\frac{32}{243}}, \text{ or } 1 - \tfrac{2}{3} = \tfrac{1}{3}, \text{ or } 33\tfrac{1}{3} \text{ per cent}$$

This rate applied to the original cost, \$243.00, would give the following amounts of depreciation each year:

First year $33\frac{1}{3}$ per cent of	\$243.00 =	\$81.00
Second " " " " "	162.00 =	54.00
Third " " " " "	108.00 =	36.00
Fourth " " " " "	72.00 =	24.00
Fifth " " " " "	48.00 =	16.00
Total depreciation		\$211.00
Salvage value		32.00
Total Cost		\$243.00

Other Methods. The fixed percentage on original cost or straight-line method is by far the most common. However, the auditor should be familiar with all the methods which may be found in practice. Among these are:

The substitute for the fixed percentage on diminishing values.
The production-units method.
The working-hours method.
The sinking-fund method.
The annuity method.
The composite-life method.

Each of these methods has its particular advantages and disadvantages. A study of them is an essential part of general accounting training preparatory to the study of Auditing Procedure.

Providing Adequate Depreciation Reserves. Whatever method of depreciation is used by a client, the auditor's duty is to satisfy himself that the amounts written off are adequate and that the practice is consistent and constant. He must also be sure that the depreciation is ample to cover possible obsolescence. In some companies the obsolescence feature is a pronounced one. Whether in such cases the reserve for depreciation is sufficient to cover obsolescence besides, can as a rule be determined by the charges to the depreciation reserve for equipment scrapped or sold, and by an investigation of the depreciation rates for each type of equipment.

It is a wise policy in any concern to make all depreciation rates somewhat higher than normal in order that the extra reserve thus created on all equipment may be utilized for the obsolescence of individual types of equipment. Where obsolescence is not or cannot be provided for out of regular operations, it is the duty of the auditor to investigate very thoroughly the property accounts and, if necessary, the equipment itself in order to exclude all obsolete property from the accounts.

Emphasis has so far been placed on providing adequate reserves for depreciation, so that the balance sheet may reflect actual financial position and the profit and loss statement proper results from operations.

Effect of Excessive Depreciation. The auditor, however, should emphasize just as strongly that depreciation provisions grossly in excess of adequacy create a secret reserve, a misstatement of operations, and a perverted balance sheet. The result is expressed in an incorrect value (book value) of net worth which might actually lead a stockholder to sell his shares at less than their real value. In fact, "the excessive depreciation method" of routing out small stockholders has already been used too often.

Though the public accountant is not a guardian of public morals, the ethics of his profession should lead him to condemn sharp business practices injurious to the public or the investor. An auditor engaged to examine the books of a corporation should bear in mind that his report is for the benefit of the entire corporation, including the stockholder, and that the latter's interests must be safeguarded. If his comments as to excessive depreciation are to be of any use, they should be made in footnote form on his balance-sheet certificate as well as in the text of his report. If given merely in the text, the chances are that the stockholder will not see them; but being made part and parcel of his certificate, which must be used in unabridged form or else be grossly misrepre-

sented, such comments will surely attract every stockholder's attention.

Test Yourself on Essential Points

1. What are reserves and how are they ordinarily classified?

2. What special considerations would influence you in fixing the rate of depreciation chargeable on:
   (a) Buildings.
   (b) Machinery.
   (c) Tools and fixtures.
   (d) Patterns. (From C.P.A. Examination.)

3. It is agreed by the directors of a manufacturing company that certain depreciation should be allowed, but that it is desirable to let the plant accounts stand on the books at cost value. How would you as auditor manage to meet the situation? (From C.P.A. Examination.)

4. Explain the relationship between a sinking fund and an allowance for depreciation. It is claimed that in municipal enterprises the requirements that rates must be high enough to provide for a sinking fund to pay off the bonds and also for a reserve for depreciation with which to replace the plant results in a double charge to consumers. Criticize or explain this theory. (From American Institute Examination.)

5. The balance in Machinery Depreciation Account shows an increase for the year of the amount provided out of income, which is computed at the rate of 4 per cent on the balance of the Machinery Account at the commencement of the year. The method of keeping the Machinery and the Machinery Depreciation accounts has been in force from the commencement of operations. Draft your comments as auditor of these accounts, assuming that no item other than those above mentioned call for any comments. (From American Institute Examination.)

Chapter XV

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Reserves

Verifying the adequacy of reserve for bad and doubtful accounts—Percentage to sales method—Surplus reserves—Reserve for sinking fund—Reserve for anticipated discounts—Secret reserves—Methods of creating secret reserves.

Reserve for Bad and Doubtful Accounts. Irrespective of the mode of its construction, there is only one way in which the auditor can properly verify the adequacy of the Reserve for Bad and Doubtful Accounts, and that is by an analysis and valuation of the receivables at the end of the period under audit. He must schedule the accounts as to their age, consult the correspondence files of the collection department, examine the customers' habits of payment, and look up the reports of credit agencies. It will also be necessary to refer to the correspondence with attorneys or collection agencies for any accounts in suit.

The essence of the entire examination is to determine the cash value of the account at a specific date. This is after all a process of inventory and the difference between such an inventory and the book values of the receivables should be the amount of the reserve. Some of the details in connection with scheduling the receivables for purposes of creating a reserve for doubtful accounts have already been discussed heretofore in connection with Accounts Receivable.

It seems that in every business losses from bad accounts must occur, so that in reality these losses must be considered as an expense of the business. The extent of the losses is almost solely dependent upon the activity and ability of the credit and collection department.

Percentage to Sales Method. If losses from receivables are viewed as a necessary expense of doing business, then

it seems that the best method of providing a reserve would be by current charges against revenue. In fact, many concerns have adopted this plan. They charge a certain percentage of their monthly sales into Bad Debts Account and credit Reserve for Bad and Doubtful Accounts. The percentage used is based upon the past experience of the company. The per cent of actual losses to total sales for a number of years is determined, and the per cent is then applied to current sales, thus making provision through operations for the anticipated losses on current sales.

This method is an excellent one but, of course, the adequacy of the reserve thereby created must stand the valuation test just described. It is the auditor's duty to apply the test because, after all, the percentage to sales reserve is constructed under the assumption that current conditions of extending credit have not varied from past conditions on which the percentage is based.

The reserve constructed on the percentage-to-sales method is much better than the method of creating a reserve annually, for it brings before the management an expense or loss which ought to be considered in current monthly operations and price making. It is one of the necessary evils of business and should be based on the income account against which the eventual loss is a charge, that is, the Sales Account. To wait until the end of a fiscal period for the creation of the reserve on a valuation basis means two things—first, a great deal of detailed analysis of the Accounts Receivable, and second, the temptation to minimize the amount of uncollectibles, either to help keep the profits up in lean years or to maintain the standing of the credit and collection department. The percentage-to-sales method, being based upon actual losses in relation to sales, eliminates the personal interests and removes the need for estimating collectibility except as a test.

Surplus Reserves. As a rule, reserves which are not

valuation adjustments form part of the Surplus Account or the net worth of an organization. They are in that sense not reserves at all but specially appropriated surplus. When carried separately on the balance sheet, they should, therefore, appear in the net-worth division. Thus a reserve for working capital consists of a portion of surplus which it is intended shall not be distributed as dividends but is to be used in the business. But even though such a reserve be set up, this action would not prevent the directors from distributing the reserve as a dividend if conditions later showed that the reserve was not needed for the purposes originally in mind.

Premiums received on capital stock sold do not constitute a reserve. There is no liability or adjustment to asset accounts. Such premiums may be accounted for in a special Surplus Account. They should under no condition be credited to the general Surplus Account.

Reserve for Sinking Fund. Sinking funds created to retire bond issues are at times also offset by reserves created as a charge against earnings. This is sound practice since it prevents the declaration of unreasonable dividends before the bonds are all retired. It is a protection to the bondholder, although the amounts so reserved will eventually represent surplus available for dividends to the stockholders and in that sense constitute a deferred surplus account and form part of the net worth of the company.

Reserve for Anticipated Discounts. There are, however, a number of special reserve accounts which are adjustments to asset accounts. Such are, for example, reserves for anticipated discounts on accounts receivable. Though the amount of such discounts cannot be positively determined, the past experience of a client should form the basis of the auditor's judgment in passing on the adequacy of such a reserve. It is hardly necessary for an auditor to set up this reserve if it is not the custom of

his client to do so. In fact, it is questionable whether discounts of this nature are chargeable against the period in which the sale was made. The discount is an inducement made by the seller to secure funds, and in that sense is really a charge against the financial division of a business when the discount is actually taken and the funds received. The discounts here discussed are cash discounts and not trade discounts. Trade discounts, as a rule, are not included in the charge to customers. If they are, then the auditor must deduct them from the Accounts Receivable and the Sales.

Reserves may be created for contingencies where the chances are strong that these contingencies will eventually become actual liabilities. Thus a reserve for legal expense may be constructed in connection with patent infringement or damage suits, because as a rule the exact amount of legal expense cannot be determined. Again, a certain concern may wish to set up a reserve for royalties in case of uncertainty as to the patent rights of others, the concern itself not being sure whether it is infringing or not.

Secret Reserves. Secret reserves are known as "secret" because they never appear on the books. In reality they are not reserves at all, but represent unrevealed financial strength or net worth. They are created either intentionally or unintentionally. When created intentionally, the management of a company does so from one of two motives—one fraudulent, the other guided by motives of conservatism.

If assets are intentionally omitted from a company's balance sheet or expenses are charged into operation in excess of requirements (such as excessive depreciation) for the purpose of discouraging small stockholders to the extent of making them sell their holdings on the basis of a fictitious net worth, such actions are obviously fraudulent and dishonest and an auditor should disclose them fully in his report or certificate. Naturally, such manipu-

lations have become less prevalent since the inauguration of the Securities and Exchange Commission. However, a secret reserve may be created intentionally without any attempt to defraud the stockholders. Excessive depreciation may be written off during very prosperous years in order to equalize earnings, it being the practice to write off small amounts or no depreciation at all in the lean years. Although this practice makes for more uniform profits, a reputable auditor cannot sanction it.

Secret reserves are being unintentionally or unconsciously created almost constantly in the vast majority of business enterprises. The growth of a firm's goodwill and the increases in values of real estate are typical. Such values are not reflected on the books, but are nevertheless quite real and become actual whenever the business is offered for sale. Such secret reserves, if they may be called such, need not be discussed by the auditor, as they are part and parcel of every business that is prosperous and favorably located.

Intentionally created secret reserves are constructed most commonly in the following ways:

1. By charging off excessive depreciation—or by writing off certain assets entirely—and by the creation of excessive bad debt reserves. This may be done out of motives of conservatism, in order to discourage small stockholders, or to avoid taxation of income.
2. By the reduction in values of inventories beyond the "cost or market" rule. This method is generally employed to deceive, because a reduction here would be hard to detect. The auditor can verify inventory valuations by referring to the purchase invoices and to the cost and production records for valuations of goods in process and finished goods. If the reduction is produced by the omission of quantities, he should apply his inventory tests as to quantities. This can be done by using the sales and purchase records or a combination of these with production records in a manufacturing plant, limiting this test to quantities exclusively. This matter has been fully covered under the caption of Inventories.

3. By charging plant additions or inventoriable items to expense accounts. A thorough analysis of the expense accounts will reveal the extent of this practice and will furnish the material for adjusting the accounts accordingly.
4. By writing off into operations intangible assets like goodwill paid for in capital stock or cash, when in reality such assets in no way affect operations. If it is deemed expedient to write off goodwill, then the net profits from operations should first be clearly shown and the deduction for goodwill shown as an extraordinary item, or the charge may be direct to surplus. In this way, every stockholder can see the actual profits of a period and not be deceived.
5. By merging or hiding certain assets with or under other assets to which they are not related.

The auditor's attitude on the question of secret reserves should be decided and positive. Wherever such reserves are found, he must comment fully on their nature in his report or, where his balance sheet certificate only is to be used for publication or before stockholders' meetings, he should qualify the certificate to show that the assets are undervalued, that certain reserves are excessive, or that some assets have been entirely omitted. If, of course, the auditor's report is not used nor his certificate published or presented, nothing can be done to inform the stockholders of the true state of affairs. But if the auditor has reported his findings and has qualified his certificate, he has done his full duty and no responsibility as to misrepresentation of facts could be placed on him. In fact, if the management of a company presented a balance sheet to its stockholders omitting the auditor's qualifications, and yet claimed that the balance sheet was the auditor's balance sheet, legal recourse could be had by the auditor against such representation. His standing as a public accountant might be injured thereby even though no damage were done to stockholders or creditors. If the latter were injured, then the auditor would be considered liable and the measure of damage done by the client might be even greater.

TEST YOURSELF ON ESSENTIAL POINTS

1. How may the auditor assure himself in a general way of the adequacy of the reserve for bad and doubtful accounts without a detailed analysis of customers' accounts to ascertain the age of the charges appearing therein?

2. If on a second audit, made a year after the first one, you find that many of the same items of bad and doubtful debts to which you drew attention at the earlier date still remain unchanged, what action would you take? (From C.P.A. Examination.)

3. How should an auditor undertake to verify bad debts written off? (From C.P.A. Examination.)

4. How should a reserve for cash discounts on outstanding accounts receivable be computed? When would you advise setting up such a reserve? (From C.P.A. Examination.)

5. It is customary with some concerns to carry secret reserves. State your views respecting that custom. (From C.P.A. Examination.)

6. Distinguish between valuation reserves and surplus reserves and give at least three examples of surplus reserves.

Chapter XVI

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Fixed Liabilities

Kinds of fixed liabilities—Mortgages—Bonds—Procedure in verification—Coupon and registered bonds—Retirement of bonds—Sinking-fund requirements for serial retirements—Interest on sinking funds—Bond retirement through annuity principle—Application of formula—Miscellaneous liens.

Fixed liabilities are, as a rule, liabilities against fixed assets, and vary from current liabilities in that they are not payable immediately but after a considerable lapse of time as evidenced by some sort of contract, lien, deed of trust, or mortgage. They are "fixed" not only in the sense of being long-time obligations connected with certain fixed assets, but they are fixed because due on a specific date at some future time. The term "fixed," however, means primarily that the liability is a more or less permanent one as distinguished from the changeable character and amounts of the current liabilities.

Under fixed liabilities we generally find the following:

1. Mortgages.
2. Bonds.
3. Miscellaneous liens.

Mortgages. Mortgages are of two kinds—those secured by real estate (land or land and buildings) and those secured by chattels or personal property. The auditor rarely encounters the latter kind except in concerns suffering from temporary or permanent financial straits. Unless the power to mortgage a company's property, whether real or personal, is specifically denied to the board of directors by the by-laws or by state legislation, the latter body possesses the prerogative to impose these obligations upon a corporation.

The auditor's first duty in connection with mortgages is to secure copies of the mortgages themselves and from them to tabulate the amounts due, the dates due, the

rates of interest, and a description of the properties hypothecated. He must then assure himself that the holder has recorded the mortgage by reference to the files of the county records, that all interest has been paid as stipulated, and that the books show the accrued interest, if any. Unpaid interest on mortgages is an additional lien on the property. It is important that the mortgage contract be read in full, as there may be provisions therein which call for certain performances on the part of the mortgagor. It is the auditor's duty to satisfy himself that such provisions have been fully complied with.

The object of mortgaging property should be determined. Property may be mortgaged as a means of securing funds for enlargement of business activities, for construction purposes, or because a company's finances are weak. The auditor must also make certain that the indebtedness is offset by value received and that the mortgage is not given to an officer for services or to some favored creditor to the damage of other creditors. Of course, an auditor cannot prevent such action, but he can make his report and certificate so lucid on the point that any creditor or stockholder reading either will suffer no misapprehension as to the status of the mortgage. And, in any event, if a mortgage be made in favor of an officer, the auditor should make sure that the services were actually performed and that they do not represent an arbitrary estimate made merely to give a large stockholder an added security to protect his investment. The courts would probably hold any act of this kind illegal and a misapplication of funds, especially if there should be any hint as to insolvency.

Bonds. An issue of bonds secured by real estate is merely ancillary to a mortgage and, because the bonds may be of small or medium denominations, provides a more ready means of securing funds. A mortgage alone presupposes the obtaining of funds from one individual or corporation, whereas bonds secured by a mortgage can

be sold to many individuals who could not as separate individuals furnish funds to the full extent of the mortgage. However, where a firm is not well known it is quite difficult to dispose of an entire bond issue, so that the straight mortgage plan of financing is probably preferable.

In verifying the Bond Account, the auditor must read both the mortgage and the bond, or copies thereof, very carefully. The wording on the bond is generally fixed in the mortgage and the mortgage or trust indenture will also cover all matters as to redemption or sinking fund provisions, payment or deposit of interest installments, and the nature and extent of the security. It is always necessary for the auditor to know what properties have been hypothecated so that a knowledge may be had of the properties that are free from lien. In constructing the balance sheet the unincumbered property should be separately stated in order to reflect additional borrowing power. It is also important for the auditor to note whether the bonds are a first lien on certain assets and a second lien on other property, and whether the security is ample in either case as required by the trust indenture.

Special clauses are often found in trust indentures, and it is the auditor's duty to comment upon whether or not the provisions have been fully met. For example, a trust deed may stipulate that the net quick assets must at all times be in excess of the total amount of the bond issue or that, when the profits exceed a certain figure, a certain percentage thereof must be set aside in a fund for bond redemption over and above the amounts which may be regularly required for sinking fund provisions. The corporation must comply with all these stipulations and the auditor must comment in his report as to whether it has or has not been done.

Bonds are of two kinds, coupon and registered. The interest on registered bonds is paid to the specified holder, as indicated by the registrar's file, either by the com-

pany's or maker's check, or by the trustee with whom the interest may be deposited. The interest on coupon bonds is payable to bearer, and is as a rule payable through the office of the trustee with whom the full amount of an interest installment must be deposited.

The bonds outstanding, that is the liability, may be verified in a number of ways. In the first place, it may be assumed that bonds are sold for cash or some equivalent. The bonds outstanding can, therefore, be verified from the cash-receipts record, or if some were issued for property or other assets the journal should yield the requisite information. Again, the outstanding bonds may be verified by an inspection of those unissued, it being assumed that any not on hand must be outstanding or if not outstanding they may be out as collateral. In the latter case they should be considered as issued, but also as the property or investment of the company.

A further verification of the bonds outstanding may be had through the interest coupons if they have all been returned. The canceled and paid coupons (as further established from the cash book) will indicate the amount of principal on which the interest was paid. The interest coupons on unissued bonds would be clipped by the company itself and would, therefore, not appear in the cash transactions. These coupons must, of course, be deposited with the trustee with the deposit of the interest installments so that the sum of the two will represent the interest due on the entire bond issue. Therefore, the trustee's receipt will afford a further means of verifying not only the interest paid but the bonds outstanding as well.

In the case of registered bonds, the registrar's records, or his certificate, will establish the outstanding bonds, provided all holders have registered; or the interest payments evidenced by the company's own canceled checks will suffice if the auditor bears in mind at all times that not only one of the advocated methods is to be used but,

if necessary, all of them, in order to establish the liability for outstanding bonds, accrued interest thereon, or the interest payments themselves. A final proof of outstanding coupon bonds is the certificate of the trustee, which should be obtained by the auditor.

The recorded mortgage, a lien in the eyes of the law, remains as an encumbrance on the property in its original amount, even though payments have been made on it, unless the payments are also recorded. If, therefore, payments appear in the client's books, the auditor should see whether they have been recorded and the lien of record reduced thereby. If such payments are not recorded, the lien of record, as originally established, should be shown on the balance sheet and the payments made shown as a deduction with the explanation that they were not recorded. Redeemed bonds should be carefully inspected to see that they have been properly canceled. The value of bonds redeemed should also be recorded as a reduction of the lien of record which, of course, is the mortgage securing the total bond issue.

Retirement of Bonds. Bonds may be retired in two ways:

1. All at one specific date called the maturity date.
2. At different dates in so-called series, each series representing a portion of the total issue.

For example, a bond issue dated January 1, 1934, of $100,000.00, might all be retirable January 1, 1944, which would be illustrative of the first method or the $100,000.00 might be payable as follows:

January 1, 1940,	$20,000.00
January 1, 1941,	20,000.00
January 1, 1942,	20,000.00
January 1, 1943,	20,000.00
January 1, 1944,	20,000.00

that is, in series of $20,000.00 each.

Whenever bonds are all to be retired at one specific date, provisions are generally made in the trust in-

denture for annual deposits with the trustee of equal amounts over a period of years sufficient to thereby build up the principal amount. These deposits on short-term issues generally start shortly after the bonds have been issued, whereas on long-term issues a considerable number of years may elapse before deposits to a sinking fund are required. Thus, in a five-year issue of $100,000.00, the requirement may call for a deposit of $20,000.00 at the end of the first year and of each succeeding year until the entire $100,000.00 has been accumulated. In a long-term issue, of say twenty years, no deposits may be required at all for the first ten years, the deposits of equal amount to begin with the eleventh year. Again on short-term issues, so that the concern being financed may have a larger use of funds during the first several years of an issue, it may be arranged that the deposits start with a relatively small amount and increase year by year. Thus, in a five-year bond issue of $100,000.00, the sinking-fund requirements may call for an arrangement like the following:

Deposits	Amount
First Year	$ 10,000.00
Second Year	15,000.00
Third Year	20,000.00
Fourth Year	25,000.00
Fifth Year	30,000.00
Total	$100,000.00

Sinking-Fund Requirements for Serial Retirements. Where bonds are to be retired in series or lots, the matter of sinking-fund requirements may be somewhat more complicated. Assume for example, a bond issue of $100,000.00, dated January 1, 1934, to be retired as follows:

January 1, 1935	$ 20,000.00
January 1, 1936	20,000.00
January 1, 1937	20,000.00
January 1, 1938	20,000.00
January 1, 1939	20,000.00
Total	$100,000.00

Ordinarily, under such an arrangement, the trust indenture might call for a deposit of $20,000.00 each year to meet the particular bonds due each year. This might be the plan under the assumption that the holders of the later series would feel safe because every previous retirement would increase their security. But where serial retirement exists, it is often common to demand pro rata annual deposits to take care of the maturity of all the series. Under such a plan it would not suffice to set aside $20,000.00 each year, but provision would have to be made from the very first year and through the years for the retirement of the last series, the fourth series, etc. The following table will illustrate the method of depositing in the sinking fund:

AMOUNTS PLACED IN SINKING FUND

On Bonds Due	First Year	Second Year	Third Year	Fourth Year	Fifth Year	Total
Jan. 1, 1935	$20,000.00					$ 20,000.00
Jan. 1, 1936	10,000.00	$10,000.00				20,000.00
Jan. 1, 1937	6,666.67	6,666.67	$ 6,666.66			20,000.00
Jan. 1, 1938	5,000.00	5,000.00	5,000.00	$5,000.00		20,000.00
Jan. 1, 1939	4,000.00	4,000.00	4,000.00	4,000.00	$4,000.00	20,000.00
Totals	$45,666.67	$25,666.67	$15,666.66	$9,000.00	$4,000.00	$100,000.00

From this table it will be seen that not only the $20,000.00 of bonds to be retired at the end of the first year must be placed in the sinking fund at the end of the first year, but that, in addition, there must be deposited one-half of the amount required for the second year, one-third of the amount required for the third year, and so on, through the five series.

A financing plan through bonds with retirement and sinking-fund requirements, as just illustrated, would be a very poor plan indeed because a deposit of over 45 per cent of the entire bond issue would be required at the end of the first year. Unless the first year for sinking-fund deposits were therefore deferred for quite a number of years after the issue of the bonds, the concern issuing the bonds would have a relatively small amount of funds to work with during a period when these funds would presumably be most useful. This hardship would be

considerably reduced in its effects if the series represented gradually increasing amounts starting with a small sum, and if the series were separated by a number of years. If, for example, the series and dates of retirement were as follows, the sinking-fund requirements would not be as harsh:

Retirement Date	Amount
January 1, 1937	$ 10,000.00
January 1, 1940	15,000.00
January 1, 1943	20,000.00
January 1, 1946	25,000.00
January 1, 1949	30,000.00
Total	$100,000.00

Assuming that the bonds were dated and issued January 1, 1934, our table of sinking-fund deposits would be as follows (Deposits to begin on an annual basis January 1, 1937):

	Series Due on					
Date of Deposits	Jan. 1, 1937	Jan. 1, 1940	Jan. 1, 1943	Jan. 1, 1946	Jan. 1, 1949	Total
Jan. 1, 1937,	$10,000.00	$ 3,750.00	$ 2,857.14	$ 2,500.00	$ 2,307.69	$ 21,414.83
Jan. 1, 1938,	....	3,750.00	2,857.14	2,500.00	2,307.69	11,414.83
Jan. 1, 1939,	....	3,750.00	2,857.14	2,500.00	2,307.69	11,414.83
Jan. 1, 1940,	....	3,750.00	2,857.14	2,500.00	2,307.69	11,414.83
Jan. 1, 1941,	....	....	2,857.14	2,500.00	2,307.69	7,664.83
Jan. 1, 1942,	....	....	2,857.15	2,500.00	2,307.69	7,664.84
Jan. 1, 1943,	....	....	2,857.15	2,500.00	2,307.69	7,664.84
Jan. 1, 1944,	....	....	....	2,500.00	2,307.69	4,807.69
Jan. 1, 1945,	....	....	....	2,500.00	2,307.69	4,807.69
Jan. 1, 1946,	....	....	....	2,500.00	2,307.69	4,807.69
Jan. 1, 1947,	....	....	....	....	2,307.70	2,307.70
Jan. 1, 1948,	....	....	....	....	2,307.70	2,307.70
Jan. 1, 1949,	....	....	....	....	2,307.70	2,307.70
	$10,000.00	$15,000.00	$20,000.00	$25,000.00	$30,000.00	$100,000.00

A somewhat new but yet quite popular plan of building up sinking funds, for purposes of bond retirement, is the so-called production-unit method. Under this plan the sinking-fund provisions of the trust indenture would provide that for every unit of production a given amount be placed in the sinking fund. This plan is particularly applicable to the extractive industries. Thus, a coal-mining company would, if this plan were in use, put into a sinking fund a certain amount for every ton of coal produced or sold. As the bond issue would be secured

by the depletable resources, the sinking-fund creation process would parallel the depletion account.

Interest on Sinking Funds. Sinking funds for bond retirement should naturally be invested in sound securities, or so deposited that a fair interest may be earned thereon. If interest is to be earned in this way, one can readily see that the accumulated interest at any time could be applied to reduce the amount of the next deposit to the sinking fund. If the interest were compounded semi-annually through reinvestment, the process of building up the sinking fund would be further enhanced.

Assume a bond issue of $50,000.00 to be retired in five years, equal annual installments to be made to the sinking fund. The following table will illustrate the effect of interest earned on the amounts to be deposited in the sinking fund:

	Interest	Principal
Deposit at end of first year..................		$10,000.00
Interest on $10,000.00 for 6 months @ 5%....$	250.00	250.00
Fund at end of 1½ years....................		$10,250.00
Interest on $10,250.00 for 6 months @ 5%....	256.25	256.25
Deposit at end of second year................		9,493.75
Amount in sinking fund end of second year....		$20,000.00
Interest on $20,000.00 for 6 months @ 5%....	500.00	500.00
Fund at end of 2½ years....................		$20,500.00
Interest on $20,500.00 for 6 months @ 5%....	512.50	512.50
Deposit at end of third year................		8,987.50
Amount in sinking fund end of third year.....		$30,000.00
Interest on $30,000.00 for 6 months @ 5%....	750.00	750.00
Fund at end of 3½ years....................		$30,750.00
Interest on $30,750.00 for 6 months @ 5%....	768.75	768.75
Deposit at end of fourth year................		8,481.25
Amount in sinking fund end of fourth year....		$40,000.00
Interest on $40,000.00 for 6 months @ 5%....	1,000.00	1,000.00
Fund at end of 4½ years....................		$41,000.00
Interest on $41,000.00 for 6 months..........	1,025.00	1,025.00
Deposit at end of fifth year..................		7,975.00
Fund at end of fifth year..................	$5,062.50	$50,000.00

It will be seen from the foregoing tabulation that of the $50,000.00 accumulated in the sinking fund, $5,062.50 represents interest earned on the deposits at a 5 per cent rate compounded semiannually. It is also apparent that because of the interest accumulation, the amounts placed in the sinking fund decreased each year (first year $10,000.00, last year $7,975.00).

The question naturally arises: It is not possible to find a method whereby exactly equal amounts deposited each year, and earning 5 per cent interest compounded periodically, will produce the same final result? If such a method exists, it will then not be necessary to deposit a larger amount the first year than in the succeeding years, thus providing for a somewhat larger use of funds, arising from the bond sales when most needed.

Bond Retirement through Annuity Principle. Sinking funds may be built upon the annuity principle. An annuity is merely a series of equal payments, made either annually or at more frequent regular intervals. Naturally, the interest rate, the compounding of the interest, and the term of years must all receive consideration. Under ordinary annuities, payments or installments are made at the end of the periods, which means that the last payment or deposit will not bear interest. In sinking-fund provisions, therefore, the method calls for periodical deposits at specified dates, the last deposit being made, as a rule, at maturity date.

Example. A company wishes to build up a sinking fund of $30,000.00 in three years. If the interest on the deposits, beginning at the end of the first year, is at the rate of 5 per cent per annum, what must the annual deposits be?

In dealing with annuities, we always deal with some unit, and the unit is naturally of a money denomination, such as the dollar, the pound sterling, the franc, etc. In order to determine the annual contribution, which bears interest and which is made a certain number of times,

we need only to know the amount of an annuity of $1.00 for the number of periods designated at a particular rate of interest and divide this into the amount of the sinking fund required. The amount of an annuity of $1.00 for three years (or periods) at 5 per cent interest is $3.1525, determined, naturally, as follows:

First installment (end of first year)	$1.00
Interest at 5 per cent (to end of second year)	.05
	$1.05
Second installment (end of second year)	1.00
	$2.05
Interest at 5 per cent (to end of third year)	.1025
	$2.1525
Third installment (end of third year)	1.0000
Amount of annuity of $1.00 for three years	$3.1525

The sinking fund required in the problem is $30,000.00; therefore, $30,000.00 divided by $3.1525 gives us $9,516.26, the annual contribution required.

The proof is as follows:

First installment (end of first year)	$ 9,516.26
Interest at 5 per cent (to end of second year)	475.81
	$ 9,992.07
Second installment (end of second year)	9,516.26
	$19,508.33
Interest at 5 per cent (to end of third year)	975.41
	$20,483.74
Third installment (end of third year)	9,516.26
Sinking-fund required	$30,000.00

Formula for Sinking-Fund Installments. To illustrate the above process by formula we have:

$$A = S.F. \div \left[\frac{(1+i)^3 - 1}{i}\right]$$

"A" representing the periodical payment
"S.F." representing the sinking fund
"1" representing the dollar
"i" representing the rate of interest
"3" representing the number of periods

Substituting, we have:

$$A=\$30{,}000\div\left[\frac{(1.05)^3-1}{.05}\right]\text{ or}$$
$$A=\$30{,}000\div 3.1525;\text{ that is}$$
$$A=\frac{\$30{,}000}{3.1525}\text{ or }\$9{,}516.26$$

In the above illustration, interest was added to the fund annually and, therefore, compounded on an annual basis. Quite often, however, interest is received semiannually and therefore compounded semiannually. If compounded semiannually, it is apparent that the periodic contributions need not be as large as when interest is compounded annually. If interest, which is figured on an annual basis, is compounded semiannually, then the effective rate is higher than the nominal rate. A 5 per cent annual rate becomes a 2½ per cent semiannual rate and the ratio of increase is 1.025 every half year, or $(1.025)^2$ for the year, and the effective interest rate becomes .050625. If .050625 is substituted for "i" in our formula, we can again determine the annuity from it, as follows:

$$A=\$30{,}000\div\left[\frac{(1+.050625)^3-1}{.050625}\right]\text{ or}$$
$$A=\$30{,}000\div 3.154438;\text{ that is}$$
$$A=\frac{\$30{,}000}{3.154438}\text{ or }\$9{,}510.41$$

The following is by way of proof:

Installment (end of first year)	\$ 9,510.41
Interest at .050625 (to end of second year)	481.47
	\$ 9,991.88
Installment (end of second year)	9,510.41
	\$19,502.29
Interest at .050625 (to end of third year)	987.30
	\$20,489.59
Installment (end of third year)	9,510.41
Sinking fund required	\$30,000.00

Application of Formula. As indicated before, bonds are not necessarily retired all at one time. A bond issue of,

let us say, \$60,000.00, dated January 1, 1935, may be due as follows:

\$10,000.00	January 1, 1937.
20,000.00	January 1, 1938.
30,000.00	January 1, 1939.

The first sinking-fund contribution may be called for on January 1, 1936. Assuming that the contributions are to earn 5 per cent annually, what must the annual deposits be?

On January 1, 1936, the contribution or deposit must provide, not only for the retirement of the first series on January 1, 1937, but pro rata for the second and third series. To provide for the first series due January 1, 1937, two deposits must be made, namely, on January 1, 1936, and January 1, 1937, respectively. The problem to decide is "What two equal amounts together with interest at 5 per cent annually on the first amount will yield exactly \$10,000.00 on January 1, 1937?" The formula already presented is again applicable; that is:

$$\text{The contribution} = \frac{\text{Amount to be accumulated}}{\text{Amount of annuity of 1}}$$

or

$$\text{Contribution} = \frac{\$10,000}{2.05} \text{ or } \$4,878.05$$

(The denominator represents the number of contributions and the interest, which in this case is on the first contribution only.)

The following table will prove the above formula:

Deposit January 1, 1936 (for first series)..	\$ 4,878.05
Interest for one year at 5 per cent.......	243.90
	\$5,121.95
Deposit, January 1, 1937...............	4,878.05
Fund, January 1, 1937 (First series).......	\$10,000.00

On January 1, 1936, therefore, the pro rata provision for the first series, to be retired January 1, 1937, must be \$4,878.05, but at the same time, more must be deposited on January 1, 1936, so as to include the pro rata amounts for the January 1, 1938, series and the 1939

series. The fund for the 1938 series may be provided through three annual deposits beginning, of course, January 1, 1936. By formula we have:

$$\text{Contributions} = \frac{\$20{,}000}{3.1525} \text{ or } \$6{,}344.17\text{, and}$$

by way of proof, the following:

Deposit, January 1, 1936 (for second series) .	$ 6,344.17
Interest at 5 per cent to January 1, 1937 . . .	317.21
	$6,661.38
Deposit, January 1, 1937	6,344.17
	$13,005.55
Interest at 5 per cent to January 1, 1938 . . .	650.28
	$13,655.83
Deposit, January 1, 1938	6,344.17
Fund, January 1, 1938 (second series)	$20,000.00

There still remains the third series of $30,000.00, due January 1, 1939, for which provision must also be made beginning January 1, 1936. To retire this series, four deposits will be necessary, computed as follows:

$$\text{Contribution} = \frac{\$30{,}000}{4.310125} \text{ or } \$6{,}960.35$$

The following table will prove this computation:

Deposit, January 1, 1936 (for third series) .	$ 6,960.35
Interest at 5 per cent to January 1, 1937 . . .	348.02
	$ 7,308.37
Deposit, January 1, 1937	6,960.35
	$14,268.72
Interest at 5 per cent to January 1, 1938	713.44
	$14,982.16
Deposit, January 1, 1938	6,960.35
	$21,942.51
Interest at 5 per cent to January 1, 1939 . . .	1,097.14
	$23,039.65
Deposit, January 1, 1939	6,960.35
Fund January 1, 1939 (third series)	$30,000.00

The following summary will illustrate the entire problem:

Year	Date of Deposits	Deposits for First Series	Deposits for Second Series	Deposits for Third Series	Total
First	Jan. 1, 1936...	$ 4,878.05	$ 6,344.17	$ 6,960.35	$18,182.57
Second	Jan. 1, 1937...	4,878.05	6,344.17	6,960.35	18,182,57
Third	Jan. 1, 1938...	....	6,344.17	6,960.35	13,304.52
Fourth	Jan. 1, 1939...	....	....	6,960.35	6,960.35
		$ 9,756.10	$19,032.51	$27,841.40	$56,630.01
Interest, First Year		243.90	317.21	348.02	909.13
Interest, Second Year ..		....	650.28	713.44	1,363.72
Interest, Third Year ...		....	....	1,097.14	1,097.14
To Be Retired.........		$10,000.00	$20,000.00	$30,000.00	$60,000.00

The matter of providing for bond retirement through the annuity principle or method has been explained in considerable detail, because the auditor should be thoroughly familiar with this method and the mathematical calculations which are called for. It is true that the annuity method is rarely used in connection with small issues of bonds, but where hundreds of thousands or millions may have to be placed into sinking funds periodically, the economy of the plan at once becomes apparent. If, for example, a sinking fund of $3,000,000.00 had to be built up in three years, it would certainly be more advantageous to deposit $951,625.69 at the end of the first year under the annuity method than $1,000,000.00, because the use of $48,374.31 could be thus secured at a time when such use would probably be of greatest value. The auditor may well point out these and other advantages of the annuity method of sinking-fund construction. He may also calculate for his client the advantages of various forms of retirement so that the burden of retirement provisions may be fairly distributed over the period of the bond issue, and so that the funds may be available in accordance with the varying needs of the concern.

Miscellaneous Liens. The auditor, while examining public records with reference to the recording of any mortgages or payments thereon, should also inspect these records for any other liens or mortgages that may still

appear as unsatisfied, even though the client may actually have liquidated the indebtedness. Then again such a search (which, of course, should not be too detailed) might reveal the existence of other liens not appearing on the client's books. There might be liens for unpaid taxes, mechanics' liens, or—more commonly—judgments. Any of these might or might not be discovered by a more or less formal search among the public records, so that the results of such a search would not necessarily be conclusive as to the existence of liens not recorded on the books.

As a rule, the auditor will rarely encounter any unsatisfied liens for unpaid taxes or for mechanics' liens, because these are generally cleared from the records when a company acquires the property to which they were originally attached. Judgments are more common, but their presence does not necessarily indicate any weakness on the part of a client. The client may have permitted a claim against him to be reduced to judgment because he disputed the claim and proposed to fight it. Nevertheless, even though the claim be a disputed one, the auditor should insist that a proper reserve be set up for it, or he should note the claim in a footnote on his balance sheet as a contingent liability.

In connection with liens generally, which may or may not appear on the books, the auditor should carefully peruse the minute book, if his client be a corporation, because in all probability, if there are any liens, they will be mentioned and their nature will be disclosed therein. Liens not disclosed in the minutes or by a conscientious search among public records cannot be discovered by the auditor unless, perhaps, he makes an extended investigation of the client's entire correspondence. This is hardly feasible except under extraordinary conditions or where there is a clear indication that the client is attempting to conceal facts about his business or his liabilities. Even in the latter case, the auditor may

not be able to gain access to the private files. He can, however, in a measure, cover himself in a trying case by qualifying his report to the effect that his findings are based on a limited use of the correspondonce files and that he was denied access to certain other files, books, or documents.

Deferred Credits to Income

Deferred credits to income represent unearned income, which should be presented on the balance sheet after the liabilities have been stated and just before the statement of net worth. They represent advance collections of income and should be transferred to Profit and Loss in the periods in which the income is earned. The following are items to be classified as deferred credits to income:

1. Advance receipts or billings of interest, royalties, rent, subscriptions, dues, etc.
2. Unrealized gross profits on installment sales.
3. Unredeemed tickets.
4. Premium on bonds unamortized.

The auditor should examine the income accounts to determine whether any advance receipts or billings of interest, rent, royalties, subscriptions, dues, etc., are included therein. The principal consideration in the verification of deferred credits is to determine whether income has been properly credited. The periods involved must be considered and the unearned portion computed accordingly.

Unrealized Gross Profit on Installment Sales. The unrealized gross profit on installment sales should be given special consideration by the auditor wherever he finds an installment business carried on. The growth of the installment business in recent years, and the special method of reporting income allowed such business by the U. S. Treasury Department, has made the matter of classification of prime importance. The Federal Revenue Act Provides:

Under regulations prescribed by the Commissioner with the approval of the Secretary, a person who regularly sells or otherwise disposes of personal property on the installment plan may return as income therefrom in any taxable year that proportion of the installment payments actually received in that year which the gross profit realized or to be realized when payment is completed, bears to the total contract price.

Within certain restrictions, sales of realty may also be reported on an installment basis.

The detailed procedure for handling installment sales so as to report the realized gross profit is explained in the following illustration:

Assume that the installment sales, collections, cost of sales, and unrealized gross profits are as follows:

	(1) Collections Year 1935	(2) Installment Sales Contracts (years 1934 and 1935)	(3) Cost of Goods Sold in Respective Years	(4) Unrealized Gross Profit on Installment Sales (2) less (3)	(5) Per Cent of Gross Profit Ratio of (4) to (2)
Applicable to Year 1934..	$ 5,000.00	$25,000.00	$20,000.00	$ 5,000.00	20%
Applicable to Year 1935..	10,000.00	60,000.00	45,000.00	15,000.00	25%
Totals...	$15,000.00	$85,000.00	$65,000.00	$20,000.00	

From the foregoing data we are to compute the realized profits. The Treasury ruling says that such profits should be computed by taking the same percentage of the cash collections made during the taxable year on account of installment sales contracts of either that or prior years, as the total unrealized profits on installment sales contracts for the year, against which the collection applies, bear to the total installment sales made during that respective year.

Applying the gross profit for each year to the collections applicable to the respective years, as shown in the foregoing data, we have:

Year 1934, 20 per cent of $ 5,000..	$1,000.00
Year 1935, 25 per cent of 10,000..	2,500.00
Realized Gross Profits..............	3,500.00

The following journal entries made monthly will properly provide for the unrealized gross profits on installments sales:

(1)

Installment Contracts Received . .	$........	
Merchandise (Inventory at cost) .		$........
Unrealized Gross Profit on Installment Sales		....
To record the installment sales made during the month of ——		

(2)

Cash	$........	
Installment Contracts Received . .		$........
To record the collections made during the month—		

(3)

Unrealized Gross Profit on Installment Sales	$........	
Realized Profits on Installment Sales		$........
To transfer the amount of realized profits based upon the percentages of gross profits of each year to the collections for the month of ——, which apply to the contracts of sales of the respective years as per schedule on file.		

With these entries the balance in the unrealized Gross Profit Account will always represent the unrealized profit, which should be stated as a deferred income item on the balance sheet.

Unredeemed Tickets. When a concern has issued tickets or coupons, the auditor may arrive at the approximate amount that is unredeemed by making tests and comparisons of the increases or decreases in the amounts shown by the accounts as outstanding with the amounts issued during the respective periods. It is important to verify the possession of the stock of unsold tickets or coupons on hand by physical inspection, as well as to account for those that have been redeemed.

Premium on Bonds. The premium received on the sale of a bond issue should be amortized over the life of the bond, so that a portion is earned each year. The same rules that govern the amortization of bond discount apply to the amortization of premiums on bonds.

All items of deferred credits should be carefully examined to determine their status as to whether they should be treated as a liability or unearned income.

Test Yourself on Essential Points

1. In auditing a balance sheet, how would you ascertain the correctness of the item Mortgages? (From C.P.A. Examination.)

2. A company is organized in New York to lend money on real estate mortgages in Florida. What examination should an auditor make of such mortgages, and how would he guard against duplicate mortgages on the same property? (From C.P.A. Examination.)

3. Give in detail a method for verifying the payment of interest on coupons from bonds of a company you are auditing, and state how proof of such payments should be presented to you. (From C.P.A. Examination.)

4. In the case of bond issue of $100,000.00, assume that it is to be retired at the rate of $20,000.00 annually, beginning January 1, 1938. What would be the annual deposits to the sinking fund to take care of the maturity of all series?

5. State a formula to ascertain the periodical installments to the sinking fund.

Chapter XVII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Capital Stock and Proprietorship

Kinds of proprietorship accounts—Capital of individual—Partners' capital—Capital of corporation—Verifying capital stock outstanding—Treasury stock—Surplus—Stock of no-par value—Recording no-par stock—Statutes relating to no-par stock—Dividends on no-par stock—Profit and loss account.

The Capital Stock Account is not a liability, it is an indication of proprietorship. It cannot be considered a liability even in case a company goes out of business voluntarily or as a bankrupt. It then is, as before, a proprietorship account, and provides the basis for distributing the assets of a company which remain after all liabilities have been paid.

Proprietorship Accounts. Proprietorship accounts correspond to the following forms of organization:

Individual proprietorships.
Partnerships.
Corporations.

The accounts indicating proprietorship in any and all these forms of organization are the same in essence and nature. They vary merely as to divisibility and transferability.

Capital of Individual Proprietor. An individual proprietor finances himself by utilizing his own funds or credit, and the entire investment and the profits therefrom are his own. He is, therefore, fully responsible as an individual for all his acts and all his liabilities. If, through unfortunate business operations, his funds invested in the business itself are insufficient to satisfy his creditors, his other personal assets, beyond his legal exemptions, may be drawn upon. This feature has a strong element of justice in it, for his personal estate is very often built up out of the profits he withdraws from his business. Had these profits been retained in his business, sufficient

funds would probably have been there available to liquidate his obligations to business creditors.

These considerations are of equal weight in connection with partnerships, except that in a partnership the responsibility is generally divided. Though a corporation exhibits a status of limited liability on the part of the individual stockholders, it is, nevertheless, somewhat restricted in its activities and in the distribution of its earnings. Thus to all intents and purposes, provided the management is honest, very considerable safeguards are provided for the creditor.

Again, if certain acts of corporate officials are proved irregular or *ultra vires,* recourse may be had against such officials, against the board of directors, or in some instances even against the individual stockholders. The activities of the individual proprietor and of the partnership are not so closely regulated by law and therefore in a sense are somewhat freer. The price of this larger freedom is the individual responsibility for the debts of the business enterprise.

The proprietorship account of an individual in business is designated as his "Capital Account." Since all the profits of his business are credited to this account or his losses charged thereto, the Capital Account, provided his assets and liabilities are all properly stated, represents his net worth—that is, the combination of his original investment (or additions thereto and withdrawals therefrom) and the accumulated profits or losses from his business operations. The practice of auditing the accounts of an individual in business is, therefore, no different from auditing the accounts of a partnership or a corporation, as far as the verification of the assets and liabilities is concerned.

The Capital Account, however, must be analyzed so as to show its status at the beginning and the changes that have occurred due to capital additions, withdrawals and accretions, or deductions because of profits or losses,

respectively. Withdrawals may be either a reduction of capital invested as such, or a distribution of accumulated profits, even though the profits are merged with the Capital Account. At any rate, a withdrawal is a reduction of net worth, whether it infringes on actual capital invested as such or on accumulated profits only. The distribution of profits as dividends out of a corporation's surplus affects the net worth of a corporation in exactly the same way, irrespective of the fact that the accumulated profits are shown in a separate account.

Capital of Partners. Partners' capital accounts reflect a condition of divided ownership, and a number of restrictions may, therefore, appear in connection with their powers of withdrawal. It is consequently imperative that an auditor secure a copy of the articles of copartnership as well as copies of any supplementary agreements made between partners. The articles of copartnership generally contain the provisions as to distribution of profits, salaries allowed the partners, additional investments, interest on capital accounts, etc. Therefore, in addition to verifying the regular assets and liabilities, one must inspect closely all the accounts of the individual partners and their specific capital accounts. By holding the members of a partnership to a strict adherence to the provisions of the articles of copartnership, the auditor can very often iron out many petty differences which sometimes grow eventually to sufficient size to wreck or dissolve the organization.

The Proprietorship Account of a partnership stands in an intermediary position with reference to the individual proprietorship and the corporation. It presents the status of divided ownership found in the corporation, but retains the feature of individual responsibility as to business debts found in the individual proprietorship. In fact, some partnerships (namely, the limited partnerships and those in which we find share-capital) are only one short step from real corporate organization.

Joint stock companies are similar in some respects to partnerships, and in other respects to corporations. They have capital shares which are transferable, and control is maintained by corporate methods; but the shareholders are subject to unlimited liability. Under the Federal Income Tax Law, such companies are taxed as corporations. The auditor should familiarize himself with statutes under which such companies are organized, and he should obtain necessary data as to their methods of operation from the articles of association.

Capital of Corporation. It is in the corporation that we first find a clear distinction between the capital furnished by the individuals or stockholders, and the accumulated earnings or Surplus Account. Immediately upon this distinction, there disappears the principle of individual responsibility except to the extent of each stockholder's investment in the corporation or his subscription contract. The corporation assumes the status of an individual in the eye of the law, and it is the corporation as such that may sue or be sued. The shareholder cannot lose more than he has invested (except in special corporations where his liability is increased by law), and as an individual he is not liable for acts of the corporation unless these be *ultra vires* or otherwise illegal. The other advantages of corporate organization are clear. Corporate existence does not terminate with the death of any of the incorporators or stockholders. Consequently, it has that great advantage of continuity which is rarely found in a partnership. The ownership may change and yet the corporation will go on. This feature is its second strongest advantage expressed by the transferability of the evidence of partial ownership—the share of stock.

The third advantage, already suggested, is the very limited liability of the shareholder. The loss to the shareholder, if he is not an executive of the corporation, is found in the relinquishment of control. An individual

in business has full control, a partner a divided control, and a shareholder practically relinquishing control vests it with a management which he and others have put into power for a certain period. His power to control is exercised only at the annual meeting when the election of officers occurs, and from that time to the next election his control is practically nil unless perchance he happens to be elected to office.

Verifying Capital Stock Outstanding. Capital stock is the principal proprietorship account of a corporation, and the shares indicate the distribution or division of ownership. To verify the outstanding capital stock, the auditor must examine the stock registers or ledgers and the stock certificate books. These records should then be compared with the lists of stockholders. Where the corporation maintains a transfer office or if some other organization acts as transfer agent, the auditor should obtain a certificate from the transfer agent as to the capital stock outstanding. If the audit be the first audit, the articles of incorporation should be examined so that the entire authorized capital stock may be determined. The auditor's balance sheet should show the entire authorized capital stock (subdivided into classes if there be more than one class), the amount unissued, and the amount that may be in the treasury of the company.

Treasury Stock. In the American Institute of Accountants' bulletin *Examination of Financial Statements by Independent Public Accountants,* the balance sheet treatment of treasury stock is stated as follows:

> If any stock of the company is held in the treasury, it should preferably be shown as a deduction from capital stock or from surplus or from the total of the two, at either par or cost, as the laws of the state of incorporation and other relevant circumstances require. If it is included on the asset side of the balance sheet, the circumstances justifying such treatment should be indicated in the caption or in a footnote to the balance sheet.

It is apparent from this summary that the auditor

should be guided by the corporate laws of the state of incorporation. Legal counsel should always be obtained on any doubtful point.

The capital stock of a corporation cannot be reduced without the approval of stockholders and authorization of the Secretary of State of the state in which the corporation was organized. Treasury stock should be shown generally as a reduction of capital stock outstanding. If the stock was acquired by purchase, it should be valued at par in the treasury stock account. Discounts or premiums on the acquisition of treasury shares, preferably, are shown as separate items in the summary of net worth. Dividends from surplus arising from such discounts may be restricted. If the stock was acquired by donation, it also should be valued at par. At the time of acquisition, the credit should be made to a donated surplus account.

The shares of stock in the treasury, if any, must be examined by the auditor; and he must also know the uses for which it has been provided. The certificates should be indorsed over to the corporation or to a trustee for the corporation; and in cases where the stock was donated, the stock should be utilized in accordance with the intent of the donors. If the stock was purchased outright by the corporation, it should be regarded as an investment, and it may be disposed of from time to time for any fit purpose like any other asset.

Surplus. The Surplus Account of a corporation is the second element composing its net worth. It should always appear as the last item on the balance sheet. Ideally it should represent accumulated profits only or necessary adjustments thereto. Thus, for example, if a company had not provided adequate depreciation during past years, a charge to Surplus Account and a credit to the Depreciation Reserve would be a necessary and proper adjustment, for the operations of past years could

not be reopened even though for proper comparisons they should be restated.

The auditor's first duty is, therefore, to secure a detailed analysis of the Surplus Account. The balance at the beginning of any period represents the accumulated profits of prior periods and should be compared with the amount shown on the company's balance sheet and the general ledger account. Normally, there should be no debits or credits to the Surplus Account during the year, except for dividends declared and charged thereto. All minor adjustments, which as a rule occur every year, should be absorbed through regular operating accounts. Accretions to the account on account of revaluation of assets should be eliminated and placed in a special Surplus Account. Profits from the sale of capital assets also should go into special accounts. In fact the regular Surplus Account should represent accumulated, undivided net profits from operations only. The ideal Surplus Account would have one credit or debit each year. This would be the amount placed there by closing the annual Profit and Loss Account. There would, of course, be found the additional charge or charges during each year for the distribution of the surplus as dividends, if any were declared.

The Surplus Account represents at any time the excess values of a business over original investment, provided all operations of prior periods were correctly figured, the original capital stock was taken at par, and the assets and liabilities are properly stated. Adjustments to surplus should, therefore, be confined to those which are necessary to reflect truly the results from past operations, or to those which will assist to make more accurate expression of the company's net worth.

Such adjustments should not include revaluations of fixed assets. The weight of evidence among practically all accounting authorities seems to favor either a plan of omitting such revaluations entirely, or, if included, of

creating for them a special surplus account. If buildings or other property subject to depreciation are revalued, the offsetting credit should be to some account representing appraisal surplus. Thereafter, depreciation applicable to the appraised values should be charged against the appraisal surplus. This is necessary to avoid overstating operating costs by including as depreciation a proration of values which were never actual costs.

An auditor should always make a distinction, where it is not already made, between actual surplus and book surplus, for the latter may often contain items which do not increase the net worth of a business or reflect the accumulated results of operation. Actual surplus should always represent the increment of true gain whereby the net worth of the corporation has been increased, and it is the auditor's function to make sure that this increment is correctly stated. If he covers in his audit all the assets and liabilities and is certain that they are as presented and fully included, he may be sure that the Surplus Account is correct even though he may not be familiar with the mode of its construction in the past years. Thus, a complete verification of assets and liabilities involves a verification of surplus.

The Surplus Account represents an increase of net worth over the par value of the capital stock outstanding, so that the sum of the Capital Stock, the Surplus Account and special net worth accounts represents the actual value of the capital stock. Every cash dividend paid represents a decrease in net worth, because the asset cash is reduced and the actual value of each share of stock is reduced in proportion.

A stock dividend declared out of surplus, however, in no way affects the net worth of a corporation, because it subtracts nothing from the property of the corporation. It merely subdivides the interests of the shareholder, whose investment is worth no more than before the stock dividend declaration. The United States Supreme Court has ruled in connection with suits brought under the 1913

and 1916 Federal Revenue Acts, that stock dividends represent not a distribution of income but a mere change in the number of shares issued. However, the Revenue Act of 1936 specifically imposes the tax on certain kinds of stock dividends as defined in the Act. The regulations provide:

A stock dividend constitutes income if it gives the shareholder an interest different from that which his former stockholdings represented. A stock dividend does not constitute income if the new shares confer no different rights or interests than did the old—the new certificates plus the old representing the same proportionate interest in the net assets of the corporation as did the old.

When shares received in a stock dividend are sold later on by the stockholder, the profit increment of the shares should be taxed as provided by the law, because the shareholder then certainly receives his share of the accumulated profits of the corporation. The sale price of his stock is made up of the original cost to him and a proportion of the accumulated profits of the corporation, it being here assumed that the sale price is fixed by the net worth of the corporation.

STOCK OF NO-PAR VALUE

All of the states have now legalized the issuance of no-par value stock. This legislation has had its merits in that it has eliminated many of the difficulties attending the issue of stock with nominal or "par" values. In the case of par stock it is necessary that the full par value be paid so as to make it nonassessable and, in many of the states, stock cannot be issued until full payment has been made to the corporation. As stock can generally be issued only for cash or property, or a combination of these, the stock of a par value issued for property often fixes the value of the property, rather than the property the value of the stock. In other words, the property must generally be valued in round amounts so that even values may offset the issue of the par shares.

When "par" stock is sold at a discount or premium, the difference between the amount of cash or values received by the corporation and the par value of the stock must be separately accounted for. Par stock, too, in a way, has been used to deceive the investing public. The certificates showing a face value have led many to believe that the face value represented real value and that, therefore, the equivalent price asked was warranted.

Recording No-Par Stock. The laws of the state of incorporation must be considered in recording an issue of no-par stock. In some states, it is necessary to credit Capital Stock with the entire amount received on issuing the no-par stock. In others, the amount received may in the discretion of the directors be credited in part to Capital Stock and in part to Surplus, subject to a minimum amount per share which must be credited to Capital Stock. The amount credited to Capital Stock is known as the "stated value." Sound accounting practice requires that the part of the consideration received in excess of the stated value assigned to the stock be designated as "paid in" or "capital" surplus.

Another problem arises if no-par stock is reacquired by the corporation as treasury stock. Should the treasury shares be carried at cost or at stated value? Generally, the most logical procedure, where accounting analysis is not modified by special statutory requirements, is to deduct the no-par treasury shares at their stated value from no-par treasury stock outstanding.

Statutes Relating to No-Par Stock. The statutes of the various states relating to no-par stock vary to such an extent that it is impracticable even to attempt to summarize them here. However, a good conception of the nature of the statutes will be gained from the following section of the Illinois Business Corporation Act:

"A corporation may determine that only a part of the consideration for which its shares may be issued, from

time to time, shall be stated capital, provided that in the event of any such determination:

"(a) If the shares issued shall consist wholly of shares having a par value, then the stated capital represented by such shares shall be the aggregate par value of the shares so issued.

"(b) If the shares issued shall consist wholly of shares without par value, all of which shares have a preferential right in the assets of the corporation in the event of its involuntary liquidation, then the stated capital represented by such shares shall be not less than the aggregate preferential amount payable upon such shares in the event of involuntary liquidation.

"(c) If the shares issued consists wholly of shares without par value, and none of such shares has a preferential right in the assets of the corporation in the event of its involuntary liquidation, then the stated capital represented by such shares shall be the total consideration received therefor, less such part thereof as may be allocated to paid-in surplus.

"(d) If the shares issued shall consist of several or all of the classes of shares enumerated in (a), (b), and (c) of this section, then the stated capital represented by such shares shall be not less than the aggregate par value of any shares so issued having a par value and the aggregate preferential amount payable upon any shares so issued without par value having a preferential right in the event of involuntary liquidation.

"In order to determine that only a part of the consideration for which shares without par value may be issued from time to time shall be stated capital, the board of directors shall adopt a resolution setting forth the part of such consideration allocated to stated capital and the part otherwise allocated, and expressing such allocation in dollars. If the board of directors shall not have determined (a) at the time of the issuance of any shares issued for cash, or (b) within sixty days after the issuance of

any shares issued for labor or services actually performed for the corporation or issued for property other than cash, that only a part of the consideration for shares so issued shall be stated capital, then the stated capital of the corporation represented by such shares shall be an amount equal to the aggregate par value of all such shares having a par value, plus the consideration received for all such shares without par value.

"The stated capital of the corporation may be increased from time to time by resolution of the board of directors directing that all or a part of the surplus of the corporation be transferred to stated capital. The board of directors may direct that the amount of the surplus so transferred shall be deemed to be stated capital in respect of any designated class of shares."

Dividends on No-Par Stock. The question of dividends on no-par stock presents no difficulties, although as a rule no rate of dividend on the actual capital invested is indicated. In most cases if a dividend is specified when the stock is sold it is at so many dollars or cents a share. If the rate is wanted it may be obtained by dividing the dividends paid during a year by the net worth (net assets) at the beginning of the year or by an averaged net worth. Whether dividends may be paid out of the capital contributed by no-par shareholders is still an open question in law, although the accountant should take a forceful position against impairment of capital through dividends. In Ohio, dividends cannot be paid from the funds contributed as capital. In New York, however, the statute does not prevent a capital impairment to the extent of any excess contributed over the capital specified in the incorporation certificate.

Some corporations have issued more than one class of no-par stock either in addition to par preferred or without any par preferred. In either case, it becomes necessary then to make some definite provisions at the time of issue with reference to the relative dividend rights of

the different classes of no-par stock as well as to the status of each class in case of liquidation.

Let us assume a corporation with a $100.00 a share preferred issue to pay dividends on the cumulative basis at the rate of 7 per cent per annum, and two classes, A and B, of no-par stock. In such cases, as a rule, the B no-par stock represents stock issued for services of promoters or for intangibles, whereas the A stock is sold to the investing public either separately or in conjunction with the preferred. What then are the respective dividend and liquidation rights of the three classes of stock?

It is apparent that dividends, both current and cumulated, must be paid on the preferred stock before any dividends may be paid on no-par stocks A and B. After dividends on preferred, it is generally provided in such cases that dividends of a certain amount per share may then be paid (if available) on Class A no-par stock, and thereafter on Class B no-par stock. If the preferred dividends have all been paid and, further, the stated dividends as provided on both classes of no-par stock have been liquidated, additional provisions out of amounts further available for dividends are also generally included in the incorporation papers for both classes of A and B no-par stock or, as in some instances, for the preferred stock also. As a rule, dividends on no-par stock where there is also a par preferred issue, are not cumulative. It is the auditor's duty, therefore, to examine most carefully all dividend and liquidation provisions of the classes of capital stock, so that the balance sheet may truly reflect the following facts:

1. The Capital actually paid :
    (a) Preferred.
    (b) Class A Common of No-Par Value.
    (c) Class B Common of No-Par Value.
2. The actual dividend liability on preferred stock for dividends regularly declared as payable; the actual dividend

liability for dividends declared on the no-par stock. All of these obligations should be set up among the current liabilities.

3. The remainder of Earned Surplus, and possibly other Surplus increments, whereby the value of the no-par stocks may be measured. So as to insure, or at least state this properly, it would be advisable to place first the liquidation values on Classes A and B, that is, if the Surplus be ample or to give the liquidation value to Class A and the remainder of Surplus to Class B, if the Surplus does not suffice to meet the liquidation value of Class B stock fully. If, of course, the Surplus is not sufficient to liquidate A fully, then it must be placed entirely to the credit of the A stock.
4. If there are any cumulated but undeclared dividends on preferred stock, the amounts of such accumulations should first be reserved out of Earned Surplus before calculating the book value of the no-par stock.

Even though capital contributed by no-par shareholders in excess of the stated value is in reality Surplus, it is questionable whether such Surplus (which is doubtless paid in Surplus or capital) could be utilized to provide for undeclared cumulative preferred dividends. The paid-in capital of the no-par shares should not be available for cumulative preferred dividends, unless the by-laws so specify and the incorporation statutes permit.

If instead of an earned surplus to provide for the preferred cumulative dividends there is an operating deficit, the no-par share capital would then be impaired, and, in fact, if the deficit exceeded the no-par capital paid in, the preferred capital would also be impaired. Nevertheless, any cumulative preferred dividend undeclared would have to be shown as a footnote.

Illustrative Problems. This whole discussion can best be clarified by the series of illustrative problems, following:

Case I. Corporation A shows the following condensed unadjusted balance sheet as of December 31, 1937:

ASSETS

Total Assets			$250,000.00

LIABILITIES AND NET WORTH

Total Liabilities			$ 50,000.00
Net Worth:			
Capital Stock Preferred—			
Authorized	$100,000.00		
Less: Unissued	10,000.00	$90,000.00	
Capital Stock, Common of No-Par Value—			
Authorized and Issued, 1,000 Shares Paid in @ $50.00 Per Share		50,000.00	
Surplus Earned		60,000.00	200,000.00
			$250 000.00

An investigation of the affairs of Corporation A discloses the following facts:

1. That the corporation was chartered and began operations January 1, 1935.
2. That the preferred stock, $90,000.00 was sold at par, and that this stock provides for 7 per cent cumulative dividends.
3. That no dividends have been paid or declared during the life of the corporation.
4. That the liabilities include full provision for the Federal income tax.
5. That the Earned Surplus was made up of the following net earnings (after provision for Federal Taxes):

1935	$10,000.00
1936	20,000.00
1937	30,000.00
Total	$60,000.00

6. That on December 31, 1937, the board of directors declared a 7 per cent dividend on the Preferred Stock, payable January 5, 1938, and a dividend of $3.00 a share on the common stock of no-par value.
7. That the public accountant called in to audit the books has been asked to reflect fully the financial condition of the company on December 31, 1937, and to show clearly the value of the common stock of no-par value.

SOLUTION

1. Dividends declared must be considered as a current liability and the following journal entry should therefore be made:

	December 31, 1934.	
Surplus	$6,300.00	
Preferred Dividends Payable.......		$6,300.00
To record dividend of 7 per cent on Preferred stock outstanding, $90,000.00, payable January 5, 1938, as per resolution of board of directors, December 31, 1937; see page 25 of Minute Book.		

2. No dividends can be declared on the Common Stock of no-par value until all cumulative dividends on the preferred stock have been paid. It is assumed that the by-laws and incorporation papers include such a provision. The auditor must, therefore, ask the board of directors to rescind its action, declaring a dividend on the Common Stock of no-par value, it being considered inadvisable to pay up the cumulative preferred dividends.

3. Following his instructions the auditor then prepares the following corrected balance sheet:

ASSETS

Total Assets			$250,000.00

LIABILITIES

Liabilities:			
Liabilities as Above.............		$ 50,000.00	
Add—Preferred Dividends.......		6,300.00	
Total Liabilities			$ 56,300.00

NET WORTH

Capital—			
7 per cent Preferred Authorized	$100,000.00		
Less: Unissued......	10,000.00	$ 90,000.00	
1,000 Shares No-Par Value Capital Paid in		50,000.00	
Total Capital Paid In..........		$140,000.00	

Surplus:			
Reserved for 2 Yrs., Cumulative Preferred Dividends	$ 12,600.00		
Earned Surplus (Unclassified)	41,100.00	53,700.00	193,700.00
Total Liabilities and Net Worth............			$250,000.00

[The value of the 1,000 shares of Common No-Par Stock is $91,100.00, i. e., the sum of the capital paid in and the unclassified or unreserved Earned Surplus. This gives a book value of $91.10 per share to the no-par stock.]

4. It will be noted from the above Balance Sheet that the cumulative Preferred Stock dividends for two years have been reserved out of Surplus before valuing the Common Stock of no-par value. The 7 per cent dividend declared takes care of only one of the three years' cumulations.

5. Had the directors decided to declare the entire cumulative dividends on the Preferred, and $3.00 a share on the Common no-par stock, the liabilities and net worth would have appeared as follows:

LIABILITIES

Liabilities:		
Liabilities as Above	$ 50,000.00	
Preferred Dividend, 3 years at 7 per cent	18,900.00	
Dividend on 1,000 shares no-par stock @ $3.00..................	3,000.00	$ 71,900.00

NET WORTH

Capital:			
7 per cent Preferred Authorized	$100,000.00		
Less: Unissued	10,000.00	$ 90,000.00	
1,000 Shares No-Par Value Capital Paid in		50,000.00	
Total Capital Paid in..........		$140,000.00	
Surplus:			
Earned Surplus		38,100.00	178,100.00
Total Liabilities and Net Worth............			$250,000.00

In this case the journal entries at December 31, 1937, would set up the entire liability for the three years' dividends on the Preferred Stock, $18,900.00, payable January 5, 1938, and a $3,000.00 liability for the Common no-par dividend payable on January 6, 1938, The book value of the Common Stock of no-par value (1,000 shares) would be $88,100.00, or $88.10 a share. The value of the no-par stock would have been reduced by $3.00 a share because of the dividend.

Case II. The following is a condensed unadjusted balance sheet of Corporation B, as of December 31, 1937:

ASSETS		
Total Assets		$500,000.00
LIABILITIES		
Total Liabilities (Unadjusted)		$200,000.00
NET WORTH		
Capital:		
Preferred Stock (Authorized and Issued)	$100,000.00	
Common Class A of No-Par Value 2,000 Shares Paid-in Capital @ $50.00 Per Share	100,000.00	
Common Class B, of No-Par Value, 2,000 Shares, Paid-in Capital @ $10.00 Per Share	20,000.00	
	$220,000.00	
Surplus:		
Earned Surplus	80,000.00	300,000.00
Total Liabilities and Net Worth		$500,000.00

1. Corporation B was organized January 1, 1936, and its net profits (after Federal taxes) were as follows:

1936	$30,000.00
1937,	50,000.00

2. On December 31, 1937 the board of directors declared a dividend of 14 per cent on the 7 per cent cumulative preferred stock, payable January 5, 1938. a dividend of $2.00 a share was declared on the Common Class A stock of no-par value, and of $1.00 a share on the Common Class B stock of no-par value; the dividends on the common stocks were made payable January 10, 1938;

3. The provisions underlying the issue of the no-par value stock indicate a liquidation value for Class A Common of \$60.00 a share, and of \$25.00 a share for Class B Common.
4. The auditor (public accountant) has been requested to prepare a balance sheet as of December 31, 1937, which will show the financial position and the equities of the various classes of capital stock.

SOLUTION

1. The following liabilities must be first set up as of December 31, 1937, through journal entries:

Surplus	\$20,000.00	
Dividends Payable Preferred		\$14,000.00
Dividends Payable Common A		4,000.00
Dividends Payable Common B		2,000.00

To Charge Surplus with Dividends declared December 31, 1937, by Action of board of directors. (See Minute Book, page 62.)

The balance sheet adjusted to reflect the conditions above outlined would appear as follows:

ASSETS

Total Assets			\$500,000.00

LIABILITIES

Total Liabilities (Unadjusted)		\$200,000.00	
Add: Dividends Payable			
on Preferred	\$ 14,000.00		
on Common A	4,000.00		
on Common B	2,000.00	20,000.00	
Total Liabilities			\$220,000.00

NET WORTH

Capital:		
7 per cent Preferred		\$100,000.00
Common Class A of No-Par Value Paid in on 2,000 Shares @ \$50.00	\$100,000.00	
Common Class B of No-Par Value Paid in on 2,000 Shares @ \$10.00	20,000.00	120,000.00
Total Capital Paid in		\$220,000.00

Surplus			
Reserved for Common Class A to make up Liquidation value, 2,000 Shares @ $10.00 Per Share........		20,000.00	
Reserved for Common Class B on Liquidation.......	30,000.00		
Add: Unclassified Surplus..	10,000.00		
Equity of Class B Stock in Surplus ....$	40,000.00	40,000.00	280,000.00
Total Liabilities and Net Worth..................			$500,000.00

COMMENTS

1. It is to be noted that the dividends declared on all stocks have been set up as a liability. These dividends would appear under current liabilities on a classified Balance Sheet.
2. No reservation has been made out of Surplus for Preferred Stock, because there are no cumulative dividends undeclared. The preferred stock from a liquidation standpoint is entitled to its capital value only.
3. The entire liquidation value of Common Class A No-Par Stock has been reserved for out of Surplus.
4. The liquidation value of Class B Common Stock has also been shown as reserved out of Surplus, but the Surplus remaining should be added to show the equity of Class B stock in the Surplus.
5. Presumably the liquidation values fixed on Classes A and B Common, would not prevent the declaration of dividends to the extent of the entire Surplus, but none of the paid-in capital should be utilized for dividends.
6. Whether or not the liquidation value placed upon Common Class B stock could be reduced in order to pay dividends on this stock, or upon Class A Common Stock, or upon both, is a matter which would be entirely dependent upon the provisions as to the respective rights of these stocks as indicated in the incorporation certificate or by-laws.

From the above considerations, it will be readily seen that an auditor must be thoroughly posted on all provisions regulating the issue and the legal status of no-par value stock and he must be prepared to pass upon the value of this stock, its rights, and its status as capital or

otherwise. Familiarity with the state laws governing no-par issues is an essential qualification.

Profit and Loss Account. The Profit and Loss Account is in reality no account at all. Technically, it is the expression of all the operating accounts. It is merely a medium for closing the operating accounts, and it should be no more. Unfortunately the auditor quite often finds a so-called "profit and loss account" in the books of some concerns which is generally a nondescript dumping ground for items which some unintelligent bookkeeper cannot classify. The very existence of such an account is an argument for its elimination, because any expense or income which is a profit and loss item (that is, a current period item) should be posted directly to some expense or income account even though a new account may have to be created therefor.

As an account on the general ledger, the Profit and Loss Account represents the medium for closing the revenue or nominal accounts at the end of each fiscal period. The balance in the account will, therefore, represent either the profit or the loss for the closed period. It is merely a summary without any attempt at analysis of the real Profit and Loss Account, which is the analytical statement of a concern's operations during a certain period. This is composed and constructed in a logical way of all the accounts representing income and of all the accounts representing expense.

The balance in the general ledger Profit and Loss Account will be closed into Surplus and Undivided Profits, or into the latter account only, depending upon the action of the board of directors. In a partnership or an individual proprietorship the profits or losses would be transferred to the partners' or the individual proprietor's capital accounts respectively. A corporation, however, might wish to place some of the profits in a surplus not available for dividends, and another portion in an Undivided Profits Account to be used for the

declaration of dividends. In any event the account should be closed into a Surplus Account at the end of the period and as the final closing entry for the period. If only one surplus account is used, the balance may at once be transferred to surplus for dividend declaration, for permanent use, or for both as the case may be. Dividends may, of course, be declared out of one surplus account or out of an undivided profits account. Or, a surplus account constructed out of a period's net profits, may be subdivided into surplus available for dividends and permanent surplus, even after the Profit and Loss Account balance has been closed into it.

The auditor must, of course, be sure that dividends declared are out of surplus or a portion of surplus reserved therefor, and that the declaration does not infringe on the capital of the company. Of this he can be sure if he has satisfied himself that the net profits are real and that the balance sheet is correct, even though the dividend declaration may more than absorb the net profits of the period audited and may encroach on the accumulated profits (surplus) of prior periods. Dividend declarations are not limited to the most recently accumulated net profits, but are limited by the entire surplus (accumulated profits) and must not be out of capital. That is, they must not reduce the net worth of a business beyond the amount of the outstanding capital stock.

It is interesting to note here that although a stock dividend encroaches upon the surplus account, it insures to a company a larger net worth which cannot be encroached upon by future cash-dividend declarations. Also in reality it assures to a company the use of a larger capital investment. The corporation parts with no value whatsoever, and the stock dividend insures it in the use of that amount of surplus which it need never withdraw from the business.

Test Yourself on Essential Points

1. What special matters should engage the attention of an auditor making an audit of a partnership, which he would not have to consider in auditing the books of any other form of organization? (From C. P. A. Examination.)

2. To what extent do you think it necessary to verify the outstanding capital stock of a corporation and what procedure would you follow in such verification? (From American Institute Examination.)

3. In auditing the accounts of a private firm where there are several partners, to what points should the auditor look in order to be assured that the partners' accounts are correctly stated? (From C. P. A. Examination.)

4. How should treasury stock be stated on a balance sheet?

5. A company with $500,000.00 of common capital stock, par value $100.00 a share, and a surplus account of $100,000.00 decides to change its capitalization from a par to a no-par basis. It, therefore, calls in its 5,000 shares of par-value stock and issues in place thereof 10,000 shares of no-par value stock. How should the transaction be recorded? What effect, if any, will the change to a no-par value basis have on the surplus account?

Suppose that a new company is organized with 10,000 shares of no-par value stock and that this new company takes all the assets and liabilities of the old company at their book value, issuing all of its capital stock in payment therefor. How would the transaction be recorded on the books of the new company? (From American Institute Examination.)

Chapter XVIII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Contingent Liabilities

Treatment in an auditor's report and statements—Notes receivable discounted—Guaranties and indorsements—Unfilled contracts—Disclosure of hypothecated assets.

Treatment in Auditor's Statements. There has been a great deal of discussion among public accountants as to the proper treatment of contingent liabilities in the auditor's report and statements. The controversy is centered about the three methods of expression, all of them in common use. These are:

1. The inclusion of the contingent liability "in short" in the body of the balance sheet.
2. The statement of the contingent liability as a footnote to the balance sheet.
3. The inclusion of the contingent liability in the balance sheet but as a deduction from an asset (at least with reference to Notes Receivable Discounted).

The inclusion in short should appear on the balance sheet either immediately after the total liabilities or at the very bottom under the Surplus Account. The two methods are herewith illustrated:

Method I

Current Liabilities:		
Notes Payable	$........	
Accounts Payable	....	$........
Fixed Liabilities		....
Total Liabilities		$........
Contingent Liability for, etc.	$........	
Net Worth:		
Capital Stock	$........	
Surplus, etc.	....	....
		$........

METHOD II

Current Liabilities:		
Notes Payable	$........	
Accounts Payable	....	$........
Fixed Liabilities		$........
Total Liabilities		$........
Net Worth:		
Capital Stock	$........	
Surplus, etc.	....	....
Contingent Liability for, etc.	$........	
		$........

The double underscore below the amount of the contingent liability will indicate that it does not enter into the footing of the balance sheet itself.

When the contingent liability is indicated as a footnote, auditors generally state it as follows: "There is a contingent liability of $——— represented by Notes Receivable Discounted (e.g.)." The footnote would be prefaced by an asterisk corresponding to the reference asterisk following the word "Liabilities," the caption for the liability section of the balance sheet.

Notes Receivable Discounted. Some accountants hold that a contingent liability for (let us say) Notes Receivable Discounted, is so remote that it should under no circumstances be included in the balance sheet itself. They are all agreed that it must be shown in connection with the balance sheet, however, and that it should be indicated in short or by a footnote as above described. To show it in the balance sheet itself, in their minds, would mean the inclusion of the Notes Receivable Discounted as an asset and a contra inclusion thereof on the liability side. Such procedure is neither necessary nor desirable, because the entire Notes Receivable, including those discounted, may be shown in one lump sum. The Notes Receivable Discounted can be deducted therefrom, thus bringing out distinctly the total amount of notes accepted by the company, the amount dis-

counted, and the net amount outstanding not discounted. By deducting the Notes Receivable Discounted in this way on the asset side of the balance sheet, one will have a balance sheet showing no larger volume of assets or liabilities than the one constructed by the other methods heretofore enumerated, and the contingent liability will need no extra comment. As long as the contingent liability is directly connected with an element of the business which is reflected in the accounts, it appears to be the best practice to relate the contingency to the account thereby affected.

But no matter how a contingent liability is expressed by the auditor in his balance sheet and report, it is imperative that it be expressed or noted and that all contingent liabilities be disclosed. Contingencies take other forms than notes receivable discounted.

Guaranties and Indorsements. A company or individual may be a guarantor by either indorsement or contract. The auditor should inquire of the officers of a company or of the partners or individual in business, as to whether any such guaranties or indorsements exist and whether any security is on hand as protection to the business. If the partners, individuals, or officers of a corporation are interested in any other companies, such an inquiry should be very searching. The minutes of a corporation should also be closely scrutinized in this connection. To fix the contingent liability for notes receivable discounted at the bank, the banker's certificate should be called for. It is also recommended that certificates be obtained from the beneficiaries under a guarantee, so that the true status of the whole transaction may be determined. An officer of a company may not always tell the whole truth and, therefore, the guarantee may be more of a real liability than a contingency.

Unfilled Contracts. Unfilled contracts for materials, etc., in excess of current needs, though not in the ordinary

sense a liability, should receive comment on the auditor's balance sheet as a footnote and in his report. These contracts may be so large and may call for payment at such an early date that the current assets of a concern may be seriously menaced thereby or may be entirely insufficient for payment. The auditor should therefore in every audit call for the unfilled contracts or purchase orders so as to know that these are merely normal and that they do not jeopardize the financial status of his client.

Disclosing Hypothecations. The auditor should make a footnote on his balance sheet of any current assets that have been hypothecated. Sometimes all or some of the chattels, or "choses in action," of a company or business may be hypothecated to secure a creditor or money lender. Such a condition must be clearly revealed by the auditor, because other creditors should know the real value of their claims. The minutes of the corporation should reveal any hypothecation of this character, because a resolution of the board of directors would be necessary before such hypothecation could occur.

It was mentioned before that there is a strong tendency on the part of some public accountants to regard certain contingent liabilities as very remote, and they have, therefore, concluded that a mention thereof in a footnote or the inclusion thereof in short in the balance sheet is the strongest expression of which the contingency is worthy. Any auditor who has been fortunate enough to investigate the accounts of bankrupts realizes fully the dangers of such doctrines, for he generally has found that in many instances the bankruptcy itself was occasioned by contingent liabilities that became real.

A note given in settlement of an open account may in many instances indicate a weakness on the part of the maker, and if the holder discounts such a note there may be a very strong contingent liability created which may be anything but remote. In such a case it is cer-

tainly preferable to carry the note receivable discounted on the books so that the concern itself may have before it plain facts which should not be overlooked. A very thorough analysis of the notes receivable discounted should be made; many of these might represent notes that have been renewed a number of times, and they may therefore be actual liabilities. An adequate reserve had better be set up for such notes, because the reserve for bad and doubtful accounts, as a rule, does not provide for such contingencies.

It is essential in connection with any corporation audit that the auditor insist on seeing the minute book. As a rule, every item that is unusual and also the contingent liabilities will be revealed through this source. If an inspection of the minute book be denied the auditor, it is his duty to mention that fact in his report and in a footnote to his balance sheet. He should follow the same course with reference to any other significant records which his client refuses to turn over to him, indicating if possible in both instances the reasons advanced by the client for denying access to such records.

Test Yourself on Essential Points

1. What do you understand by the term "notes receivable discounted"? What entries are required in respect of notes receivable discounted? How should notes receivable under discount be shown upon a balance sheet, if at all? (From C. P. A. Examination.)

2. Explain how you would treat the liability as indorser on a note in your report on audit. (From American Institute Examination.)

3. In making an audit, what procedure would you follow to verify the accommodation notes discounted? (From C. P. A. Examination.)

4. During the audit you are making of the accounts of a corporation, you become aware of a claim against the company which you think is likely to be enforced, but which the directors do not recognize, and for which they will make no reserve. What would you do in the circumstances? (From C. P. A. Examination.)

5. Discounted Notes Receivable Account showed a credit balance at a given date of $1,200.00, representing four notes as follows, each maturing within two months:

Note No. 1	$400.00
Note No. 2	250.00
Note No. 3	150.00
Note No. 4	400.00

Note No. 1 will be paid at maturity but there is some doubt about Notes No. 2 and No. 3 being paid. It was known, however, that Note No. 4 would not be met, since the maker was bankrupt. State how the auditor should report these notes, if at all, on a balance sheet. (From C.P.A. Examination.)

Chapter XIX

AUDIT OF INCOME ACCOUNTS

Methods of detecting inflation of sales — Manufacturers' income accounts—Proof of sales in quantities—Treatment of sales and purchase discounts—Auditing sales accounts—Income of wholesale and retail dealers.

Many auditors are so engrossed with the task of assuring themselves that all expenses have been properly accounted for and that all assets and liabilities are correctly stated in the balance sheet, that they overlook to a very large extent the income-producing accounts, or at least dismiss these accounts rather arbitrarily, on the assumption that every business, being interested in making a good showing, will on its own initiative report its income fully. This is very true, but the income may be reported too fully! Though an inflation of income should normally be discovered through the relationship of balance sheet accounts to income accounts, the general books may be so well "doctored" that the balance sheet accounts appear flawless in spite of very thorough inspection.

An analysis of the income accounts during a fiscal period and comparisons of these with corresponding months of prior periods may at once indicate irregularities which require attention. Thus, if the sales of the last month of the period audited were much in excess of the sales of the corresponding month of the prior period (assuming that no inflation occurred then), the excess may be the result of including during the period shipments made in the subsequent month and set up as accounts receivable.

Methods of Detecting Inflation of Sales. There are two methods of detecting such a fraud, both of which are fairly conclusive. They are:

1. Inspection of the shipping records, through which the shipments or sales for the last month of the period may be proved.
2. Analysis of the inventory or production records, as the case may be.

However, if the inventory has been "doctored," a combination of the two methods may be necessary.

Where there are cash sales, these may be inflated by running through receipts from accounts receivable as cash sales, at the same time increasing the accounts receivable for sales made subsequent to the close of the period. This fraud can readily be uncovered by checking the receipts per cash book against the bank-deposit slips, supplemented, if necessary, by circularizing the customers. The last month's correspondence file would, as a rule, contain the remittance letters or blanks, and these would afford additional proof. In most establishments cash sales are also evidenced by cash slips of some kind. These will afford the very best check on the cash sales and the consequent deposit of cash.

The inflation of sales through the accounts receivable may be detected most surely by circularizing the customers themselves and by asking for a direct verification to the auditor of the balances per books at the end of the period. In a retail, jobbing, or wholesale business, the shipments for the audited period may be proved through the final actual inventory and the relation thereof to the beginning inventory and the purchases within the period. Unless the quantities of goods reported on hand at the end of a period have been incorrectly or falsely reported, the shipments or sales should correspond to the following formula:

Beginning Inventory + Purchases — End Inventory = Sales or Shipments (in quantities).

In a manufacturing business the formula for sales would have to be modified as follows:

Finished Inventory at Beginning + Production — Finished Inventory at End = Sales (in quantities).

The use of these formulas combined with the other tests discussed above should afford all the tools necessary for a detection of sales inflation.

Manufacturers' Income Accounts. While it is true that the principal and in many cases the only source of revenue in manufacturing establishments is through the sale of finished or manufactured commodities, the determination of such sales is beset with somewhat more difficulty than the establishment of sales in a retail, wholesale, or jobbing business. In the latter cases the sales commodities are identical with the commodities purchased, and no change in their form occurs. A manufacturer, however, rarely sells his purchases. He converts them into finished commodities which represent either an entire disappearance of the purchases as raw material, or a combination of these into an entirely new or at least modified product. To account properly for quantities sold implies an investigation into the process of production wherein the raw materials are converted into finished commodities for sale, and wherein there may appear many elements of shrinkage which may or may not be avoidable.

Proof of Sales in Quantities. The sales of a manufacturer may be proved in quantity, after making allowances for spoilage and shrinkage, by the use of the following formulas:

1. Raw Material at beginning of period + Purchases — Raw Material at end of period = Raw Material content of production (reduced to formula content in finished product if possible).
2. Raw Material content of production + Direct Labor + Factory Overhead = Total Cost of Production (to be divided into quantities of finished product, by types or on a formula basis).
3. Finished Product Inventory at beginning of period (in quantities, by types) + Production (in quantities, by types as above determined) — Finished Product Inventory at end of period (in quantities, by types) = Sales of Finished Product for the period (in quantities, by types).

The application of these formulas combined with others heretofore discussed under the caption of "Inventories," should afford ample proof of sales in quantities by types and of beginning-and-end inventories.

There is no positively correct method of proving sales on a value basis. The relation of sales value to costs and to gross profits is a rough proof, but cannot be considered conclusive, especially when the auditor is confronted with a period wherein the sales prices or the costs of production have fluctuated appreciably.

Manufacturers are coming daily to a better realization of the need for proper general accounting systems and cost accounting systems. Wherever such systems are in force, the auditor will generally find that the task of verifying the income from sales is a simple one. Nevertheless he should take the precaution of examining the sales records in order to satisfy himself that they were properly closed on the last day of the period covered by his audit. He should therefore make a comparison of the shipping records with the sales records. If a concern wishes to inform its banker or creditors that it is in a healthy condition as far as sales orders are concerned, there is no objection to the addition of a statement of the bona fide orders on hand at the end of the fiscal year; in fact, it is recommended that such a statement be included. However, if this be done, the auditor should compare the outstanding orders with those on hand at the end of the previous fiscal period, and should make sure that there is no loading. The orders might very conveniently be grouped into orders for immediate delivery and for future delivery, with a general division of future deliveries by months.

Checking Manufacturer's Sales. In reporting sales, the auditor should, in his profit and loss statement, indicate first the gross sales. From this he should deduct allowances, returns, possibly out-freight and cash discounts.

There is a tendency on the part of some public ac-

countants to view cash discounts as an expense of financing rather than as a deduction from sales, and there is considerable justification for treating them in this manner. It is an almost universal practice to regard cash discounts on purchases as a financial earning rather than as a reduction of purchase price. Why then should discount allowed on sales accounts, which is a bid for funds, be treated as a reduction of selling price? In fact, the discount taken on purchases may be made possible by the funds obtained by permitting a discount on sales. The one is an income dependent upon the availability of funds, the other is an inducement to obtain these funds quickly. An auditor who treats discounts on sales as a financial or general expense rather than as a deduction from sales, will be free from criticism, especially if at the same time he considers discounts taken as a general or special revenue item. The two accounts may appropriately be set off one against the other.

Auditing Sales Accounts. In the audit of all sales accounts the sales should be compared with the orders for the purpose of determining first, whether all orders have been filled, and second, whether the sales have all been accounted for. Tampering with the sales account should readily be discovered by means of such comparison. All orders are presumably to be filled, and anyone tampering with the sales accounts would probably either not have access to the order books or not think of altering these as a precaution to cover a manipulation of the sales records. If such a precaution were taken, then the salesmen's own records should be examined. The salesmen's orders and, in fact, all sales orders should be numbered serially so that every order may be accounted for by number.

If the auditor works from the sales orders to the sales and finds certain orders unfilled, it is his duty to discover why they have not been filled. His request for information should first be directed to the sales department,

which should be able to produce a cancellation order or letter. If the inquiry must be pushed further, the auditor should correspond with or interview the salesmen and finally, if necessary, should take the matter up with the customer himself. The auditor, as before suggested, should also consult the shipping records. The application of any or all of these methods should establish beyond any question the correctness or incorrectness of the sales account.

Cash sales of the products of a manufacturing concern are not customary. There may be cash income, however, from other sources.

In almost every industry there is considerable scrap or offal which from time to time may be sold for cash. Probably the best way to account for such income, which is dependent upon production, is to obtain from the superintendent or the manager an estimate of the percentage of such scrap to production. This matter may have to be approached from the quantity, rather than from the value, side; i.e., the percentage of scrap resulting from the use of certain quantities of raw material may have to be determined. Whether such scrap is sold for cash or on time does not affect the method employed. The income from the sale of scrap, if resulting from a necessary operation in production, should be credited against the cost of sales. If representing the sale of obsolete material or tools, it should be credited to a Miscellaneous Income Account or to the Asset Account if the latter is still on the books.

Income of Wholesalers and Retailers. The verification of income from sales in wholesale and retail establishments is almost entirely an inventory matter. The sold commodity is identical with the purchased commodity, so that if the inventories at both ends of a period are correct and the purchases have been properly accounted for, the sales at cost will be represented by the following formula:

Beginning Inventory + Purchases — End Inventory = Sales (at cost).

Though this formula proves the cost value of the goods sold, it is not conclusive as a test of sales unless quantities are used instead of values and unless the quantities thus determined are accounted for in the sales records. It should be remembered that the sales price is something entirely different from the cost value of the sales. In proving the Sales Account, the auditor should procure the sales price lists for the various types of articles sold and should, if necessary, inspect the individual sales entries in order to assure himself that the sales price was charged in full. Where there have been no changes in selling price during a period, or where it may be averaged, a total proof of the Sales Account may be obtained by multiplying the total quantities of the various types of commodities sold by the unit selling price. This method may not give the exact result, but if the difference is small, the auditor can feel fairly confident that the Sales Account is properly stated. He should, however, supplement the method just recommended by a fair test of the individual sale charges.

The test of sales through quantities by using the beginning-and-end inventories and purchases suggests the value of a "perpetual" inventory system. The auditor may be of great service to his client by recommending such a system where it is not already in use. It is almost impossible to prevent stock shortages in wholesale and retail establishments without detailed inventory control. A perpetual inventory system in these concerns becomes truly an investment, for the cost of its operation will in almost all cases effect a saving which will be a handsome return on the outlay. Shrinkages will be reduced to a minimum and these can be accounted for quite fully.

The cash sales of a retailer form a very large per cent of his entire sales. It is, therefore, necessary to use every precaution in verifying this source of revenue. In the

larger stores the internal check on the cash and charge sales is as a rule so complete that an auditor cannot, because of the great volume of detail, do more than check the summaries prepared by the store's auditing department. He must see, however, that all the summaries have been entered properly in the general books, and should make a number of tests of the summaries. This can be done by checking the cash and charge slips for a number of days during the period to the summaries. In other large retail establishments where there is sufficient internal audit, the same procedure should be followed. In smaller retail stores, where the internal check is not extensive, the auditor must make some thorough tests of the cash sales and, if possible, relate these and the charge sales to the inventories.

Test Yourself on Essential Points

1. If an auditor is satisfied that all income and expenses of a business are properly reflected in the operating accounts for a given period, should he pay any further attention to those operating accounts? If so, what should he do? (From C. P. A. Examination.)

2. Outline two methods of detecting inflation of sales.

3. What formula of sales can be used for checking the accuracy of sales?

4. Outline a method of proving sales in quantities.

5. Explain the procedure in verifying the sales account.

Chapter XX

AUDIT OF EXPENSE ACCOUNTS

Expense audit under voucher system—Comparing vouchers with voucher register—Summary of points to be observed in vouching—Expense audit under nonvoucher system.

The audit of Expense Accounts is either quite simple or extremely difficult, according to the kind of records kept by the client. Where there is a thorough analysis of expenses through a voucher system, with all bills attached to the vouchers, the audit of Expense Accounts is comparatively simple. Where, however, charges to Expense Accounts come through the cash book, journal, and possibly other sources, with expense bills filed alphabetically after payment, it is an enormous task to verify the propriety of the charges. In fact, unless the client agrees to pay a considerable fee, it will be impossible to secure an entirely satisfactory audit.

Sometimes the auditor would do well indeed to advise his client to forget the past and to put in a proper system of accounts. An unsatisfactory audit due to poor accounting in a client's office is worth little to the client or to the auditor. It is often money thrown away which could be put to better use by engaging the auditor to put in an adequate system. Of course, where there is suspicion of defalcation or other irregularity, an audit should be made and should be limited as a special investigation. Also, in some instances it should be made in order to show the client how badly and inadequately his accounts are being kept. Some people need rude awakenings.

Expense Audit under Voucher System. Where the voucher system is in use, all expenses payable are distributed in the voucher register. This distribution may be in detail or to controlling accounts. In a small business the entire distribution can generally be shown in the

voucher register itself, but in a large enterprise it is generally found necessary to charge all expenses to a few controlling accounts in the voucher register and to supplement the register by an analysis ledger or sheet. Numbering the accounts is found very convenient and efficient in the latter case, the analysis ledger showing both numbers and names of the accounts. A convenient numbering scheme is to have all assets prefixed by the number "1," all liabilities by the number "2," all income accounts by the number "3," and all expense accounts by the number "4." A voucher register supplemented by an analysis ledger would, therefore, need few columns, for all details under the various captions would be expressed in the analysis ledger.

In examining vouchers, the auditor should make sure that they are properly approved for payment, and that the prices on the bills have been checked and the extensions verified. He should instruct his assistants to test a number of the extensions. The important task in examining the vouchers is to study the accounts to which they are charged. The nature of the bills attached to the vouchers will as a rule give sufficient information so that the distribution may readily be verified. An inventoriable purchase or an addition to Property Account can be readily detected, but there is a "twilight zone" where advice from the purchasing agent or others may be necesssary.

Bills for repairs, renewals, replacements, and minor additions to plant are sometimes extremely difficult to classify, and the auditor is forced, in many instances, to "take somebody's word for it." He can, however, protect himself to a certain extent by comparing such charges, as totals, with the like charges for other periods. Because of heavy Federal Income Taxes there is a tendency on the part of some to load the expense accounts, with the result that many charges which were formerly capitalized or charged to reserves for depreciation are now put into

operating expenses. Such practices will continue just as long as governments continue to tax profits.

Comparing Vouchers with Register. In comparing vouchers with the voucher register it is hardly ever necessary to cover the entire period in detail. Exhaustive tests should be made for a number of months, scattered throughout the year. The voucher, with its bills attached, should first be compared with the voucher register entry (in the Vouchers Payable column), and a check mark in colored pencil should be made to the right of the amount. The bills attached to the voucher should then be examined and the distribution to the expense account, or accounts, or to the capital account should be verified. This examination must be analytical, and the auditor or his assistant must here display good judgment and a general knowledge of business operations so that there will be no question as to the propriety of the distribution. The distribution should be checked in the voucher register and the analysis ledger (if there be one) as well as on the voucher itself. They should agree. The voucher itself is the approved distribution, and the voucher clerk is supposed to carry that same distribution on the register from which the accounts in the ledger are constructed.

Summary of Points Observed in Vouching. The points to be observed in vouching may be summarized as follows:

1. The charge must be correct as gleaned from the nature of the bill or bills.
2. The voucher must be properly approved as to distribution and the bills must be checked as to prices and extensions.
3. The receiving clerk's original certificate should be attached to bills covering purchases. If not attached, the receiving clerk's file should be examined and a test comparison made with purchase invoices.
4. The voucher register distribution must agree with the distribution per voucher.
5. Missing vouchers must be listed (if of sufficient value).

6. Vouchers of doubtful distribution must be referred to the proper official for clarification.
7. Vouchers fully examined, passed, and compared with the voucher register should be ticked or stamped by the auditor and replaced in the file. A memorandum of the last voucher number examined at the close of any day's work should be made by the auditor, so that no one of the office force can tick any subsequent vouchers or the voucher register without its being discovered.
8. After the vouchers have been examined, the canceled checks in payment thereof should be compared with the vouchers and an appropriate check mark entered in the voucher register. Where voucher checks are used and the bills attached to the canceled checks, the vouching and accounting for the payments can be performed in one operation and a combination tick may be used (as for example "vc", the "v" representing voucher examined and the "c", check compared with voucher).
9. If there are no receiving clerk certificates, the purchase invoices should be compared (at least in part) with the stores records.
10. The auditor must satisfy himself that vouchers are made out to the creditors whose names appear on the bills, and that the checks in payment are made out to the same parties.
11. Bills permitting discounts should be compared with the discount entries on the cash book or the voucher register according to the practice of the client in this matter. Some forms of voucher registers provide a column for purchase discounts, whereas in other cases purchase discounts are taken care of in the cash book or check register.
12. Petty cash vouchers should be carefully tested, and proper receipts must accompany each voucher distributed through the voucher register. Any suspicious-looking receipts must be traced, and payment to officers or employes must be satisfactorily explained. Very often an irregularity on the part of the cashier can be discovered by passing the petty-cash vouchers to an official of the concern for approval. The auditor himself cannot afford to put in too much time on petty cash or general vouching, as there are many more important tasks.
13. The auditor should have one of his assistants verify the footings of the voucher register (either in part or in whole,

depending upon the extent of internal audit), and all the postings from the voucher register to the general ledger should be checked.

14. At the completion of the vouching a list of the unpaid vouchers should be prepared from the voucher register and compared with the general ledger controlling account for Vouchers Payable.
15. All journal adjustments to Vouchers Payable should be fully examined.

Expense Audit under Nonvoucher System. The procedure outlined above is for vouching where a voucher register and system are in use, with the vouchers filed numerically after they are paid. Unfortunately, however, voucher systems are not in universal use and it is sometimes difficult to convince a client of the advantages of such systems. We cannot, of course, discuss here the relative merits of accounting systems, nor does this consideration improve the status of poorly kept accounts which nevertheless must be audited.

The auditor will generally find that where voucher systems are not in use, the payment of bills is not tied up with any system of filing the bills themselves, and that the bills are generally filed alphabetically for convenient reference use. Vouching under such conditions is beset with numerous difficulties, and the auditor should proceed according to the following rules:

1. He should call for all bills arranged according to dates of payments (whether he expects to use them all or not).
2. From the cash book or purchase record (if there be one) he must inspect the charges to the various expense, purchase, or capital accounts. He must compare the bill by name of vendor, amount, and nature with the entry in the cash book or purchase record, with its distribution therein, and with the check or cash payment. This work may be all inclusive or may be confined to complete tests covering certain periods. The auditor may possibly deem it sufficient to examine bills and payments throughout the period in excess of a certain amount.
3. He must give especial attention to the distribution of the charges, because where accounts are kept loosely the danger

of improper classification is very great. He must also check the general ledger postings very carefully.

4. The amount of the various expenses during the audited period should be compared with the same expenses of prior periods in order to discover any loading or other irregularities.
5. The cash book and other records involved with purchases and expenses should be footed, and their totals should be traced into the general ledger.
6. All petty-cash disbursements should be carefully analyzed and properly accounted for. Receipted bills should be demanded for all petty-cash disbursements and any irregularities should be thoroughly ironed out.

Wherever books are kept loosely, the auditor can be of great service to a client if he will make a very thorough inspection of the accounting system, report on its weakness and inadequacy, and recommend generally how the system may be improved. Any constructive advice in an auditor's report, not too freely given, makes the client feel that the public accountant is interested beyond the collection of a fee.

Test Yourself on Essential Points

1. Suppose you were the junior accountant on an audit, and were told by your senior to check in detail the vouchers for the months of November and December. Outline your procedure from beginning to end, assuming that the company had adopted the voucher system.

2. If in Problem 1, you find that the company had not a voucher system, would your procedure be different? If so, outline the steps.

3. In what circumstances should paid checks be treated as vouchers? Are checks always proper and sufficient vouchers for purchases? Give reasons. (From American Institute Examination.)

Chapter XXI

AUDIT OF EXPENSE ACCOUNTS (Cont'd)

Extraordinary expenses—Deferred and accrued expenses—Salaries and wages—Pay roll taxes.

The previous chapter presented the general principles involved in auditing expenses. It is necessary, however, to analyze more specifically the peculiarities of certain expense accounts, many of which are common to almost every type of business, and to outline the methods to be employed by an auditor in examining these accounts. These expenses may be grouped as follows:

1. Extraordinary expenses not chargeable to operations.
2. Deferred and accrued expenses.
3. Salaries and wages.
4. Selling expenses and salaries.
5. Administrative and general expenses.
6. Legal expenses.
7. Returns and allowances.
8. Interest on loans, etc.
9. Freight and express.
10. Factory costs.
11. Bad debts.

Extraordinary Expenses. At times, in almost every business, extraordinary expenses arise, which in no way immediately affect operations, but which must, nevertheless, be deducted before the surplus net profits of a period can be determined. There might be extraordinary legal expense in connection with unusual suits brought against a company. For example, several years ago a number of dissatisfied stockholders brought suit against the board of directors of a corporation, claiming that certain securities owned by the corporation had been sold at a price damaging to the stockholders. At the same time, these stockholders also filed a petition for a receiver. Investigation revealed that these stockholders had previously secured

an option on the securities; the option had expired, and the securities had been sold to others at a higher price than that offered by the stockholders. The company had really got a much better price than the stockholders themselves had offered, but they were piqued that the securities had not come to their hands; hence they brought suit against the directors and applied for a receiver on the claim of mismanagement. An audit proved that there was no basis for suit and that the company had been better managed than ever before in its history. However, a considerable sum was expended for legal advice in fighting the disgruntled stockholders and averting receivership.

This expense had to be charged in its entirety during the period of its incidence. It could hardly have been treated as a deferred expense, for it in no sense benefited future operations nor did it bear any relation whatsoever to operations either current or future. If anything, the good name of the company was jeopardized for a short period as a result of the suit. It would have been very inappropriate to defer any of the legal expense, for the future certainly received no benefit, and a deferred item of such character would have made a very sorry showing on the balance sheet. One might think of many such unusual expenses which must be charged out during a current year, even though they bear no relation whatsoever to operations or the results from operations.

When confronted with any unusual expense, such as the one just stated, the auditor should insist that it be completely charged off as incurred, and must, moreover, determine, from whatever sources necessary, that the entire expense has been accounted for and that nothing foreign thereto has been included in order to show up the net profits from operations more favorably. Any extraordinary expenses should be fully explained in the auditor's report, and in the profit and loss statement, they should be deducted as extraordinary expenses after

the net profits from operation have been clearly shown. On a representative condensed profit and loss statement they would appear as indicated herewith:

Sales		$........
Deduct—Cost of Sales		....
Gross Profit		$........
Deduct—Selling and General Expenses:		
Selling Expenses	$........	
Administrative Expense	....	....
Net Profit from Operations		$........
Deduct—Interest on Loans and Extraordinary Expenses:		
Interest on Loans	$........	
Extraordinary Legal Expense (see p—— of report)	....	....
Surplus Net Profit		$........

Some extraordinary charges cannot properly be deducted during the current year, but become surplus charges. Such would be a charge for obsolescence. Thus, a machine costing $5,000.00, the life of which was estimated at twenty years, became obsolete at the end of the fifth year. It had been depreciated only to the extent of $1,250.00. Then the loss due to obsolescence, amounting to say $3,000.00 (assuming $750.00 to be the scrap value), could not be charged entirely against the fifth year. Four-fifths of the $3,000.00 would have to be charged against surplus and one-fifth to the fifth year as an extraordinary charge. The entire period during which the machine was useful should bear the charge for obsolescence rather than the final year.

In cases of this kind the auditor should caution and counsel his client to provide for the element of obsolescence through the depreciation reserve. This reserve should be made sufficiently large on all equipment so that the obsolescence of any individual equipment may be covered; thus, if all machinery were estimated to have a normal life of ten years, a depreciation reserve constructed on the basis of eight years for all the machinery

ought to provide fully for the almost certain obsolescence of single units.

All vouchers or payments for unusual or extraordinary items and all unpaid liabilities in connection with such items must be examined carefully and no effort must be spared in demonstrating that the liability has been fully taken care of in the accounts. In the case of law suits affecting the financial position of a client, it is the auditor's duty to review the case fully and to secure a complete knowledge of the claims of both sides. He should not be guided entirely, if at all, by the contentions of his client, for he should desire first and foremost to know the whole truth. He must be guided in his conclusions and recommendation by the facts and by their effect upon his client's financial position or profits. He may be brought to a severe test, but such tests are the real factors which make him either a respected exponent of his high profession or a charlatan.

Deferred and Accrued Expenses. These expenses have already been discussed in their relation to the balance sheet. It is equally important, however, for an auditor to see that each month's operations are charged with the correct portions of the unexpired insurance, the prepaid interest (if any), the accrued interest, wages, salaries, commissions, taxes, and similar items. Convenient registers and records have been provided for the monthly distribution of most of these expenses and such records should be fully examined. The deferred or the accrued amounts at the end of the period must actually represent either a correct charge to future operations or a current charge payable at some future time, respectively. It cannot be too strongly recommended that all expenses be placed on a monthly basis in order that, combined with the cost of sales, the results from operations, or net profits, may be known at the end of each month. There are few concerns indeed that can afford to wait an entire year before reckoning profits.

Salaries and Wages. While the system of reporting individual employees' wages and identifying employees by number, as provided in the Federal social security and state unemployment compensation laws, has made it possible to curtail or eliminate entirely the carrying of unauthorized persons on the pay roll, the auditor still has to give the same attention to erroneous and unauthorized payments in his examination of pay rolls.

Many businesses still pay factory employees in cash, which is handed out to them in pay envelopes. These pay envelopes should never be filled by the same person making up the pay roll, nor should they be handed out by that person. Every pay roll should be properly audited before the men are paid. The pay roll itself should first be compared with the time cards, and these in turn, where a cost system exists, should be compared with factory labor records which record the distribution of each employee's time. The general auditor, or his assistants, should superintend the actual paying off and should tick the pay roll for envelopes given out.

Any envelopes left over should be placed in the cashier's office and checked against the time cards remaining. After payment, the time cards should be filed in the general office and should, from time to time, be compared with the cost records.

The auditor should also call for the pay rolls covering general office and executive salaries. The office pay rolls should be approved by some officer of the company, and all changes in salary should have proper authorization. The cancelled checks should be compared with the payroll record. It may not be necessary to do this for the entire period, but sufficiently exhaustive tests should be made.

The extent of the auditor's investigation of the pay rolls should be measured by the nature of the pay-roll system. Where the system is surrounded by extensive internal checks, a number of tests should suffice. Where

the whole system is loose, the matter should be gone into more thoroughly.

Pay Roll Taxes. The Federal social security and the related state unemployment compensation laws have created new problems in connection with the audit of salary and wage payments. In addition to verifying the amount and validity of these, the auditor has to ascertain that the pay-roll taxes imposed under both state and Federal laws have been correctly determined and recorded.

Prior to the enactment of this legislation, pay-roll records and procedures were primarily matters of internal administrative control. Now, in addition, they become the legally required means of compliance with state and Federal laws.

In some respects this legislation has been beneficial to the auditor, because it has made it compulsory for all commercial and industrial businesses to keep adequate pay-roll records, and has emphasized the necessity of proper internal control over wage payments.

The Federal Social Security Act has created a threefold system of pay-roll taxes as follows:

1. Federal Old Age Insurance Taxes.
2. Federal Unemployment Compensation Tax.
3. State Unemployment Compensation Tax.

The verification of these taxes should cover not only the reported tax liability, but also all matters that may affect the total tax liability of the business. The extent of the examination of pay-roll records, procedures, and reports will depend on a variety of factors, but the following are some of the more important matters that should be considered:

1. The employers covered, rates, the wage base, and employment exemptions vary considerably, and it is imperative for the auditor to be thoroughly acquainted with the provisions of both state and Federal laws in order to ascertain that the business is correctly adhering to them.

2. It is important to reconcile the total taxable wages as reported to state and Federal governments with the pay-roll records and wage and salary accounts after considering exempt employments and wage limitations.
3. It is necessary to ascertain whether the business is liable for taxes on employees of others. Under some state laws where an employer hires a contractor or sub-contractor to do work in the ordinary course of the employer's business, the employees of the contractor or sub-contractor are considered employees of the principle employer, unless the contractor or sub-contractor is himself an employer under the law.
4. An examination of the correspondence between the employer and state and Federal administrative agencies may disclose important information regarding the tax status of the business.
5. Accrued but unpaid pay-roll taxes at the balance sheet date should be verified and set up as a current liability on the balance sheet.

Test Yourself on Essential Points

1. In the audit of the books of a company, it is found that the president's salary account is credited with a bonus of $5,000.00 for "extra service", in addition to the usual salary paid him. What steps should be taken to ascertain that this item is correct? (From C. P. A. Examination.)

2. In auditing the accounts of a trading company for 1937, you find a general expense with a balance of $8,654.58. The pay-roll account for the year was $66,285.69. Would you consider it necessary to analyze the general-expense account where you were instructed to complete the audit in the minimum time? (From C. P. A. Examination.)

3. How would you proceed to determine whether there are any charges to expense accounts for deferred and accrued items not considered on the books of the company you are auditing?

4. Outline your procedure in auditing the payrolls of a manufacturing business.

Chapter XXII

AUDIT OF EXPENSE ACCOUNTS (Cont'd)

Selling expenses and salaries—Salaries, commissions, and expenses—Advertising expense—Administrative and general—Legal expense—Returns and allowances—Interest on loans—Freight and express—Factory costs—Bad debts.

Selling Expenses and Salaries. Before making the necessary inspection of selling expenses and salaries, the auditor should call for the contracts of his client with the salesmen. These sometimes stipulate exactly what expenses are allowable as well as the basis of remuneration. Sales agents selling on a straight commission may not have a claim against the concern until the sales accounts have been paid in full. In other cases, commissions are graded according to the size of order and again are varied with reference to different types of goods. Sometimes bonuses are paid or are payable on excesses of sales over a fixed figure. Such bonuses must be set up as a liability at the end of the fiscal period.

All of these considerations, and more, must be in the auditor's mind before he plunges into the details of selling expense accounts. He should know specifically the relations existing between the salesmen or the agent and his client, in order that he may make a just interpretation and analysis of the accounts. Compliance with contract or written employment proposals on the part of both employer and sales agent should form the basis of the deeper analysis of the selling expenses and salaries accounts.

Salaries, Commissions, and Expense. The mechanical work that follows the gaining of this information has to do with the audit of the salaries, expenses, and commission of sales agents by means of fairly extensive tests of the salesmen's expense reports, of the commission reports or statements, and a comparison of these with the vouch-

ers and payments issued. The salesmen should be required when sending in their expense reports to submit receipts for hotel bills paid, for livery, and for their transportation. Where mileage books are used, the salesmen should make weekly or semimonthly reports of miles used, and these should tally with the distances between towns as reported in the expense reports. Unused mileage, if of sufficient value, should be considerel as an advance at the end of the fiscal period in the auditor's balance sheet. In some concerns this item runs into hundreds or thousands of dollars and must receive consideration. In many companies the salesmen are required to report on the mileage in their possession with as much care as they exercise in reporting their cash expenditures. Consequently, in such cases, the auditor will have little difficulty in determining the value of unused mileage at the close of the period under audit.

The auditor must also call for all the salesmen's expense reports handed in immediately after the close of the period, so that the accrued expenses will receive consideration. As the salaries of salesmen are usually paid once or twice a month, they should be easily verified and any accruals readily detected.

Advertising Expense. Outside of selling salaries, traveling expenses, commissions, etc., the principal item in the selling expense accounts is advertising expense. According to its nature advertising expense either is immediately chargeable or may be deferred. Current advertising in newspapers, magazines, or on billboards, if continuous, had best be charged at once as expense. If, however, a new line of goods is got out or a special campaign is launched, it is perfectly legitimate to defer part or all of such expenditures until returns come in. Since the auditor examines the accounts at a date sometimes considerably subsequent to such expenditures, he generally has the opportunity to know whether or not they have been successful. This knowledge should guide him

in placing a valuation on the deferred charge. There is, let us remember, a general tendency on the part of the advertiser to overvalue his advertising. A new line of goods may not sell at all, and many special advertising drives have failed.

Regular advertising through the medium of catalogs can be put on an inventory basis, provided the catalogs illustrate and advertise a company's standard products. The cost of the catalog issue should be charged to a Catalog Inventory Account. As the catalogs are mailed or distributed, the Inventory Account should be credited and Advertising Expense charged. The rules governing inventories should be used by the auditor in verifying the balance in such accounts at the end of the period audited, and all old or obsolete catalogs should be charged off. The large mail order houses do all their advertising by catalog. Thus in their case the Catalog Inventory Account is of the very greatest importance and deserves close scrutiny.

Administrative and General Expenses. The audit of executive and clerical salaries has already been discussed. The other administrative and general expenses consist of a great many items, chief among which are telephone and telegraph, postage, the expenses of the credit and collection department, depreciation of office furniture and fixtures, traveling and general expenses of officers, dues and subscriptions, stationery and office supplies, and a host of minor general office expenses. A thorough test of the vouchers covering these expenses must be made by the auditor, and he should secure an analysis of them for comparison with the like expenses of prior periods.

He must also make sure that all expenses of this nature have been included in the accounts for the period under audit. If they have not, he should set up the liabilities therefor, always bearing in mind, however, that similar treatment must be accorded to the same accounts at the

beginning of the period he is auditing. This is a good rule to follow, because even after such expenses have presumably all been discovered some additional odds and ends will still turn up. Such items may, of course, be disregarded both by the auditor and by the company, for as a rule they are inconsequential and recur practically every year.

Legal Expenses. The account for legal expenses should always be carefully inspected and the vouchers charged thereto closely scrutinized. This account is sometimes used as a repository for unusual expenditures or for some that are open to criticism from the viewpoint of business ethics. Again the auditor must make sure that all legitimate legal expenses have been fully charged. His inspection of the minute book and other records should reveal whatever litigation his client is party to. It then becomes the auditor's duty (if the client has not already done so) to request that the attorneys send in their bills covering their entire charges to the close of the period being audited. With reference to irregularities in the Legal Expense Account the auditor must take a firm stand, and should report the account in accordance with his analysis.

Returns and Allowances. Credits to Accounts Receivable other than for cash, deserve the closest kind of scrutiny. Not only may such credits be an indication of careless business policy, but they are as frequently a common cover for fraud. Many bookkeepers have used this way of temporarily enriching themselves. Cash collected was pocketed and the customer's account credited by journal entry, the charge being to Returns or Allowances; or at times part of the cash may have been pocketed and, therefore, only a partial credit passed through the journal, making the transaction appear less suspicious. In other instances, numerous journal credits for returns and allowances indicate a weak business or busi-

ness-getting policy. Some concerns consistently make allowances to customers merely to retain their good will and to secure more business. The customer soon reaches a stage where he expects the allowance as a regular thing, and if refused he withdraws his account.

In well-organized offices, the dangers of abuse through the Returns and Allowance Accounts are not very great, provided the company's business policy is strong. The auditor will find, as a rule, that all credits to customers for returns or allowances have been fully authorized by the proper official. These authorizations must be examined (at least in part) and in the case of credits for returns the auditor should call also for the receiving records and actually trace the return into the Inventory Account. The returns must not only be evidenced by an entry crediting the customer and charging sales, but must be expressed by an additional entry charging inventory and crediting cost of sales. Many large concerns now use return and allowance journals, in which the authorizations (which should be consecutively numbered) are entered and thence posted to the appropriate accounts. These journals should not be kept by the accounts receivable ledger clerks, but should form a part of the general auditor's records, for they are instrumental in fixing the general ledger controlling account for the customer's ledgers.

The power of granting allowances to customers and of permitting goods to be returned should be carefully circumscribed and, in fact, should be allocated to a very few individuals. These persons should make a thorough review of each case before acting, and they had better be officers of the company rather than any of those specifically interested in sales promotion, collections, or credits. Authorizations for returns and allowances should be filed numerically after entry in the allowance journal so that they may be referred to readily. A cross index will be afforded if the ledger clerk is instructed to insert

the authorization number when crediting the customer. The auditor should make a number of very thorough tests, even where the authorization system is in force, in order to be certain that there are no abuses of the power to grant allowances and authorize returns. Every allowance cuts into profits, and every return means not only a sale lost but the waste of the expenditures made in securing the order.

Interest on Loans. Interest on borrowed money, though not affecting net profits from operations, except in the case of financial institutions, is an expense of conducting business which decreases the amount of net profit carried to Surplus Account. It may consist of interest on bank loans, on notes given in settlement of purchases, on construction contracts, or on bonds or other fixed indebtedness. To put the case briefly, it is an expense of financing or funding a business. Interest on borrowed money should therefore not appear in the auditor's profit and loss statement until after the net profits from operations have been stated.

The Interest Expense Account may be verified in conjunction with the examination of the Notes Payable or Bonds Payable Account. In this examination the total amount of interest for which the company is liable during the year on each instrument of indebtedness should be tabulated, and this tabulation should be compared with the Interest Expense Account, with which it should agree. If it does not, then the company has probably neglected to consider the accrued interest or has failed to make adjustments between years. The interest attached to each instrument of indebtedness during a given period and a tabulation prepared on that basis should give the correct amount chargeable during the period.

The auditor should also ascertain whether there are any interest obligations for past-due accounts payable, or on loans made by officers or partners, as the case may be. Interest is also charged, and sometimes at very high

rates, on unpaid judgments, past-due taxes, and other liens. No audit is complete until the auditor has assured himself regarding possible liabilities of this sort.

Freight and Express. Too often the auditor passes over the charges for freight without any attention whatever, assuming that the railroad companies make no mistakes. Though the auditor is not supposed to be a classification and rate expert, he should have sufficient knowledge of tariffs and commodity classifications to make a number of fairly conclusive tests of freight payments. Railroads and express companies frequently overcharge. The auditor should inspect closely the system of checking freight and express bills and he may safely assume that, if his client employs an experienced traffic manager, overcharges will be rare. Every freight bill should be approved as to rates and weight, and a number of bills should be examined in any event. It is important for the auditor to see that all freight paid on f. o. b. destination shipments has been deducted from the vendor's invoices. Shipments on which freight has been prepaid by the consignor must also be carefully investigated.

Factory Costs. In manufacturing plants having cost systems, it becomes the auditor's duty to acquaint himself with the system in use and, if possible, to reconcile any differences that may exist between the costs as recorded by the cost department and those included in the general accounts. *A cost system that cannot be tied up with the general books is of little value.* A cost system must report the actual costs of all labor, material, and such overhead as is accurately determinable or paid, and the general books must be brought in line therewith. The overhead, based upon estimates including items like depreciation, must be furnished to the cost department by the general accounting staff, and the costs must include these estimates. A double co-operation of this kind should make the costs per general books agree with the costs shown in the cost department.

It is not within the province of this work to outline a proper cost system, nor to discuss the methods by which the records of a cost department may be tied up with the general books, but it is our duty to remind every auditor engaged in auditing a manufacturing business where a cost system is employed, that his task cannot be considered complete or worth while unless he makes a thorough examination of the cost system and its relation to the general accounts. If the two are at variance in their expression, a reconciliation must be established so that true costs may be recorded in the auditor's statements and on the books of his client.

Whether a cost system exists or not, it is the auditor's duty to verify all the accounts affecting costs of operation and to analyze them properly. This is important not only with reference to the cost accounts themselves, but in connection with the valuation of inventories of goods in process and of finished stock. Methods of verifying these inventories have been discussed previously. The auditor should, of course, give his client whatever constructive advice is necessary with reference to cost systems and their relation to general accounting.

Bad Debts. This item of expense is so common that little comment is necessary. The Bad Debt Account may either represent the amount reserved for bad and doubtful accounts, or may be the sum of bad accounts actually written off during a period. In the latter case there would probably be no Reserve Account, although there might be instances where accounts were charged off rather than to the reserve to take care of special cases not covered by the reserve. An account should not, as a rule, be charged off until it has been reduced to uncollectible judgment or until a report of its entire uncollectibility has been received. Until an account has been proved absolutely uncollectible it is advisable to carry it in a suspense ledger, in order that it may be kept in mind and followed up and also in order that additional shipments

may be prevented. Suspense accounts must be fully reserved for, but should be carried as an asset until proved bad. At that time they should be charged off against the reserve, or to bad debts if no reserve is carried.

Test Yourself on Essential Points

1. What would you consider satisfactory evidence of the correctness and propriety of expenditures of the following classes?
   Salaries paid to salesmen.
   Salary and expenses of president.
   Advertising expense.
   (From American Institute Examination.)

2. How is the position of an auditor affected if the system of the concern under audit is defective as to cost methods? (From American Institute Examination.)

3. Why is it important to examine carefully the account for returns and allowances?

4. What steps would you take to verify the amount of freight and express?

5. What special attention should an auditor pay to Commission Expense Account?

Chapter XXIII

ANALYSIS OF ACCOUNTS

Amount of analysis work dependent upon the classification of accounts—Outline of analysis of balance-sheet and profit-and-loss accounts—What analysis reveals.

The amount of analysis work to be performed by the auditor depends almost entirely upon the classification of accounts maintained by the client. Many concerns through the use of analysis ledgers, or sheets, make a very detailed analysis of their accounts according to accepted classification principles. In such cases the auditor needs only to verify the analysis by inspecting the vouchers or other sources on which the analysis is based. A great deal of care must be used to see that the segregation is proper, but tests will usually suffice. The internal control is generally adequate and sufficiently intelligent so that proper analysis may be secured.

Outline of Analysis of Accounts. Where, however, there is little if any attempt at correct classification or analysis, the auditor may have to go to very great lengths in order to secure a properly segregated or analytical statement of income and expense. He may even find that the assets and liabilities need to be analyzed in order that they may be properly grouped in his balance sheet. The following outline will suggest the segregation or analysis of representative balance-sheet and profit-and-loss accounts:

ASSETS

1. Cash:
   - (a) Cash in bank.
   - (b) Cash on hand or in Petty Cash Fund.
   - (c) Cash held as deposits.
   - (d) Working Funds and Travelers' Funds.
2. Notes Receivable:
   - (a) From customers.
     - (1) Age analysis of past due notes.
     - (2) Renewals.
     - (3) Current and not due.

(b) From officers and employes and their status.
(c) Notes Receivable discounted.
(d) Notes out for collection.
(e) Notes held for other purposes.
(List of securities held as collateral.)

3. Accounts Receivable:
   (a) Customers' accounts (analyzed according to age).
   (b) Accounts of officers and employes.
   (c) Miscellaneous Accounts Receivable.
   (d) List of probable discounts.
4. Reserve for Bad and Doubtful Accounts.
   (a) Amount at beginning of period.
   (b) Amounts reserved during period.
   (c) Accounts charged to reserve during period.
   (d) Reserve at end of period and basis of construction.
5. Inventories:
   (a) Raw materials, by classes if possible.
   (b) Stock in trade (in case of retailers and wholesalers) by classes.
   (c) Goods in process and basis of valuation.
   (d) Finished goods by types.
   (All to be tied up with purchase and production records.)
6. Prepaid Expenses:
   (a) Insurance:
      (1) Record of policies by numbers, companies, and amount.
      (2) Amount of premiums paid and charged to Prepaid Insurance.
      (3) Amount unexpired.
      (4) Balance charged to Insurance Expense.
   (b) Interest:
      (1) Date of loans.
      (2) Interest or discount rate.
      (3) Due date.
      (4) Amount at end of period.
   (c) Miscellaneous Prepaid Items:
      (1) Catalogs.
      (2) Office supplies, etc.
7. Investments:[1]
   (a) In the securities of subsidiaries:
      (1) Date of securities and their nature (stocks or bonds).

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[1] If any securities are out as collateral, this fact should be recorded. The income from the securities should always be related to the investment accounts.

(2) Total securities issued by subsidiary and percentage held by client.
(3) Dates acquired and price paid.
(4) Accrued or total income derived or to be derived.

(b) In outside securities (bonds or stocks):
(1) Dates and maturity.
(2) Interest rates.
(3) Interest received and accrued or last dividend received.
(4) Market value.
(5) Excess of market value over book value or vice versa.
(6) Movement of securities during year (through sales, new purchases, or otherwise).
(7) Balance at beginning of period; purchases or sales and balance at end.

(c) In a company's own stock or securities:
(1) Dates acquired and price paid.
(2) Securities donated and basis of valuation.

8. Fixed Assets:
(a) Land by parcels as originally acquired and additions.
(1) Changes due to appraisal or revaluation.
(2) Sales.
(3) Balances.

(b) Buildings:
(1) Various classes and their values at beginning of period.
(2) Depreciation rates.
(3) Amounts of depreciation.
(4) Additions or sales.
(5) Loss or gain on sales.
(6) Adjustments to Reserve for Depreciation.
(7) Balance at end of period.

(c) Machinery or Equipment.
(1) Factory equipment and machinery by buildings or departments (values at beginning of period).
(2) Depreciation rates.
(3) Amounts of depreciation.
(4) Obsolescence during year.
(5) Additions or sales.
(6) Loss or gain on sales.
(7) Adjustments to Reserve for Depreciation, or because of revaluations.
(8) Balance at end of period.

(d) Office Furniture and Fixtures (treated as above).
(e) Power Plant and Equipment (treated as above).
(f) Warehouses (treated as above).

9. Good will, Patents, Trade-Marks, etc.
   (a) Basis of valuation and beginning balance.
   (b) Rates of depreciation and amounts of depreciation (if any).
   (c) In the case of goodwill, how acquired.

10. Deferred Charges:
   (a) Advertising:
      (1) Basis of deferring.
   (b) Bond Discount:
      (1) Basis of deferring.
   (c) Organization Expense:
      (1) Basis of deferring.
   (d) Etc.

Liabilities

1. Notes Payable:
   (a) For loans.
      (1) Dates of notes.
      (2) Due dates (with notation on past-due or renewed notes).
      (3) Amount.
      (4) Rate of interest.
      (5) Interest paid and payable (or accrued).
      (6) Collateral (if any).
   (b) For purchases or on contracts (same analysis as above).
   (c) To officers and employes (same analysis as above with additional notes on character of the notes and why given).

2. Accounts Payable:
   (a) For purchases, etc. (analyzed according to age; estimate of discounts).
   (b) Accounts of officers and employes.
   (c) Miscellaneous Accounts Payable.
   (d) Accrued accounts.
      (1) Wages, salaries, commissions, etc.
      (2) Taxes.
      (3) Interest.
      (4) Miscellaneous accruals.

3. Bonds and Mortgages:
   (a) Bonds:

(1) Date of issue.
(2) Due dates.
(3) Amounts of issue.
(4) Interest rates.
(5) Total amount of interest to be charged to period separated into amount already paid and amount accrued.
(6) Trustee.
(7) Sinking-fund requirements and practice.
(8) Security.
(9) Mortgage recorded at ....

(b) Mortgages:
(Practically same analysis as for bonds.)

Reserves

1. For Depreciation:
   (a) Buildings, machinery, equipment, etc:
      (1) List of buildings, machinery, etc., or in groups according to their uses and construction.
      (2) Balance reserved for each at beginning of period.
      (3) Rates of depreciation.
      (4) Amounts of depreciation reserved during period.
      (5) Replacements and renewals charged during period under each group of assets.
      (6) Supplementary:
         (a) Repairs and maintenance charges during period on each group.
         (b) Total upkeep charges (the sum of depreciation reserved and repairs).
2. Special Reserves (analysis dependent upon the nature of each).

Net Worth

1. Capital Stock:
   (a) Total authorized (shares and par value).
   (b) Total issued (shares and par value).
   (c) Amount in treasury (if any) and consideration therefor.
   (d) Distribution of shares:
      (1) Outside investors.
      (2) Officers and department heads.
      (3) Employes.
   (e) Basis of distribution:
      (1) Sales for cash.
         (a) At par.

(b) At premium.
(c) At discount.
(2) In exchange for property or intangibles.
(3) As bonuses or under profit-sharing arrangements.
(4) Stock dividends.

2. Surplus:
(a) Balance, beginning of period, and composition thereof.
(b) Adjustments or changes during period, and nature thereof.
(c) Surplus net profits for period (as substantiated by profit and loss statement).
(d) Balance at end.

Income

1. From Sales or Trading:
(a) Sources and distribution (arranged by classes or types of product or departments).
(b) Sales by sales territories or by salesmen.
(c) Sales by branches.

Cost of Sales

1. Manufacturing Costs:
(a) Materials (including "in freight" and storing charges).
(b) Direct labor.
(c) Factory overhead.
(1) Indirect labor.
(2) Light, heat, and power.
(3) Repairs and maintenance.
(4) Depreciation.
(5) Insurance.
(6) Taxes.
(7) Superintendence.
(8) Manufacturing supplies.
(9) Other overhead.
(Notes on system in use.)

2. Trading Costs:
(a) Beginning inventories by classes of articles.
(b) Purchases during period (by classes) including "in freight" and handling charges.
(c) Inventories at end of period (by classes).
(d) Cost of sales (by classes and departments).

Selling Expenses

1. General Sales Office Expenses:
(a) Sales manager's salary and expenses.

(b) Selling department salaries and expenses.
(c) Portions of general expenses chargeable.
   (1) Telephone and telegraph.
   (2) Postage.
   (3) Depreciation, insurance, and taxes on portion of office building and office furniture and fixtures.
   (4) Light, heat, etc.
   (5) Depreciation or loss of samples.
   (6) Office stationery and supplies.
(d) Miscellaneous.

2. Road Selling Expenses:
   (a) Salaries of road salesmen.
   (b) Expenses of road salesmen.
   (c) Segregation of expenses by territories or by salesmen to be used as a basis for estimating selling costs of sales made in territories or by each salesman.
   (d) Sample expense.
3. Branch Selling Expenses:
   (a) Salary of branch manager.
   (b) Salaries and expenses of branch salesmen.
   (c) Office expenses of selling branch (including rents or depreciation, taxes, and insurance if building is owned by company).
   (d) Portion of general selling office expense (if prorated).
   (e) Portion of advertising expense.
   (f) Total branch selling expenses (related to branch sales accounts).
4. Advertising:
   (a) By catalogs.
   (b) Newspapers and periodicals.
   (c) Billboards.
   (d) Advertising material placed with salesmen or branches.
   (e) Advertising expense related to various classes sold.
   (f) Territorial advertising.

      (Advertising costs generally should be related to sales by types of product, to territories, and to mail order sales).

Administration Expenses

1. Executive Salaries (by departments).
2. Clerical Salaries (by departments).
3. General Office Expenses (by departments).
   (a) Postage.
   (b) Telephone and telegraph.

- (c) Office supplies and stationery.
- (d) Depreciation, insurance, and taxes on portion of office building and furniture and fixtures.
- (e) Light, heat, etc.
- (f) Miscellaneous.

4. Credit and Collection Expense:
   - (a) Salaries.
   - (b) Expenses.

INTEREST AND DISCOUNT

1. On Loans:
   - (a) On account of loans discounted.
   - (b) On demand loans.
   - (c) Total interest paid or accrued (to be tied up with Notes Payable Account).
2. On Bonds (to be related to Bonds Payable Account).

It is far from our intention to propose the foregoing outline either as all-inclusive or as adaptable to every type of business. Our object has been merely to suggest the wide range of possibilities in connection with the analysis of a few representative accounts such as may be found in almost any manufacturing, retail, or wholesale establishment. Analysis is necessary. Without it the auditor cannot prepare an intelligent statement of a concern's operation nor can he interpret the tendencies of these operations. Analysis also reveals the errors in the classifications and uncovers many items which were either intentionally or unconsciously buried; it indicates the errors of commission and of principle. As a mechanical feature, the analysis of the accounts does away with the need of verifying the ledger footings, for the sum of the various segregations appearing in the analysis should agree with the ledger footings.

The auditor will find the use of thirteen-column or even larger analysis paper very convenient and adequate. The essence of the analysis is primarily to show the component elements of the accounts, and to bring out clearly as one total the amount which is being used by the auditor in either his balance sheet or profit-and-loss state-

ment. In other words, the analysis of each account should tie up with the figures used in the statements.

Test Yourself on Essential Points

1. Explain how internal control and the classification of accounts aids in making the proper analysis of accounts.
2. Outline the steps for analyzing:
   (a) Accounts receivable.
   (b) Notes receivable.
   (c) Inventories.
   (d) Fixed assets.
   (e) Accounts payable.
   (f) Bonds and mortgages.
   (g) Surplus.
   (h) Selling expenses.
3. Name at least three advantages to be gained by analysis work.

Chapter XXIV

MECHANICAL OR DETAIL SIDE OF AN AUDIT

The mechanical work in an audit—Verification of footings, postings, and vouchers.

The mechanical work in an audit embraces the verification of footings and postings, and vouching. The extent of this detail work will naturally be determined by the condition of the accounts examined.

Footing. As a rule the following books and records should be footed by the auditor or his assistants:

1. Cash book (or cash receipts record and check register).
2. Voucher register or purchase record.
3. Return and allowance records for both sales and purchases.
4. Sales journals or records.
5. General journal (if there are postings from totals).
6. General ledger accounts.
7. Accounts receivable ledger accounts.
8. Accounts payable ledger accounts (where the voucher register has not eliminated the accounts payable ledger).
9. A number of pay rolls.
10. Petty-cash record.
11. Cost records (if tied up with the general books).

It is usually unnecessary to foot all of the books included in the above-mentioned list, but fairly exhaustive tests should be made so that several months of each period will be covered.

The tests of cash book footings should never be omitted. However, if all receipts are deposited intact in the bank and all disbursements are evidenced by checks and no irregularities have been discovered after making exhaustive tests, the auditor may reconcile the bank statement and cash book in totals. Instead of reconciling merely the final balances, the auditor should reconcile receipts with deposits and disbursements with bank withdrawals. Receipts may be reconciled as follows:

Deposits per bank statements		$........
Deduct—Deposits credited by bank at beginning of period entered on books prior thereto		....
		$........
Add:		
Deposits entered on books during period (near end) credited by banks subsequently	$........	
Canceled checks written back into receipts as offsets to disbursements but not issued or else not used by payee	....	....
Total receipts record footings	$........	$........

The total disbursements per check register may be reconciled by using the following formula:

Disbursements per bank statements		$........
Deduct—Checks issued prior to beginning of period (outstanding at that time) cashed by bank during period (hence included in bank's statement of checks withdrawn)		....
		$........
Add:		
Checks issued toward end of period (outstanding) not cashed by bank during period but entered in check register	$........	
Checks written but canceled prior to presentation to bank	....	....
Total check register footings		$........

Checking Postings. Posting is the process of transferring items from journals to ledgers. Checking postings is the comparison of the items as entered in the ledger accounts with the corresponding items in the books of original entry. Postings to the general ledger come from the following records:

1. Cash receipts.
2. Cash disbursements.
3. Petty cash book (in some instances).
4. General journal.
5. Sales journal.
6. Voucher register or purchase record.

If all postings come through self-balancing records and chiefly from the totals in such records, the matter of checking these into the general ledger is quite simple and should consume little time. Where, for example, a voucher register is used to record all payables of every description and where controlling columns are used, there will probably be only a few individual postings to the general ledger. These will be only those appearing in the Sundries or the General Ledger column of the voucher register. All other postings would represent monthly totals of the various controlling account columns. Where, in contrast, general ledger accounts are charged directly from the cash book or check register or through other mediums, the amount of posting is greatly multiplied and the auditor's task of checking them much enlarged unless columnar analysis is provided.

Ordinarily, postings to the general ledger should be checked from the source entry to the ledger. In many cases, however, it may be found easier to check from the ledger to the original entry, thereby enabling one to take each account in the ledger consecutively and to check it out completely before going to the next account. Such procedure will also remove the danger of any of the office force tampering with the auditor's ticks or of ticking accounts not examined. It will only be necessary for the auditor to make a note-book memorandum of the last ledger account checked at the close of each day or whenever the ledger, being required by the client's bookkeeper, must be given up for the time being.

The postings in the accounts receivable ledgers come from the sales journals or the sales books, the cash-receipts records, and the allowance and return journals. These postings should be fully tested by the auditor. Special attention should be given to the credits for allowances and returns and to payments on account rather than for specific invoices (as already heretofore indicated). The amount of work to be done by the auditor

will here, as in almost all cases, be determined largely by the system of accounts in use and by the extent of internal control and checks.

If an accounts payable ledger is in use, the postings thereto will come from the invoices, the purchase record, or the allowance and returns journal. Where a voucher register is used and where the accounts payable ledger has been abandoned, it will be necessary for the auditor at least to test extensively the payments recorded against the vouchers and all journal adjustments which will affect both the individual vouchers and the controlling general ledger account.

Vouching. The vouching for disbursements and the examination of the vouchers have already received full consideration. It is to be constantly borne in mind that the essence of vouching is to verify the distribution, and to make sure that all payments are for the specific purposes indicated either by the payment or by the voucher, and that the check or the cash issued is to the party designated by the voucher or the bill as the case may be.

Nothing as yet has been said of certain subsidiary books, records, or even correspondence which should be drawn upon to verify entries in so-called "books of record." For example, though pay rolls appear on the voucher register for distribution, or in the cash book, they should be compared with the pay-roll books or records themselves; allowances and returns should be checked against the original authorizations, cash receipts, to a certain extent, against the remittance correspondence file, and payments, against outgoing remittance letters when not supported by a voucher system. Sales may in some instances have to be compared with shipping records, and purchases with the receiving and the storekeeper's files. General journal entries affecting general ledger accounts should be supported by the proper official's authorization or by journal vouchers which bear the proper approval. All this work is really as important

as the checking of actual postings and should not be overlooked.

Many important irregularities have been discovered by going beyond the books of record and by investigating the very first entries of transactions, even though these may have been in memorandum form only and were not tied up with the regular books.

Test Yourself on Essential Points

1. What are the objects to be attained by footing the books and records of the company under audit?

2. Explain how you would prove the total footings of the cash records.

3. From which books of original entry do postings to general ledger accounts come?

4. Is it necessary to check all the postings and prove all the footings for each month of the year in the case of a balance-sheet audit? If not, what plan would you follow to assure yourself of the correctness of accounts?

Chapter XXV

AUDIT OF CONSOLIDATIONS

Methods of effecting consolidations—Merger—Consolidation through creation of new corporation—Case of holding company organized for control only—Goodwill in book value of stock—Stock of subsidiary purchased below par—Minority interests—Intercompany relations and accounting—Audit of holding companies.

Methods of Effecting Consolidations. A consolidation of corporations may be effected in a number of ways, first by merger, which does not involve the creation of a new corporation, second, by the formation of a new corporation to purchase the net assets of the other corporations, or third, by a device known as the holding company.

Merger. A merger would be effected in the following manner:

1. Corporations A, B, and C decide to consolidate, corporation A to effect the consolidation.
2. Corporation A may either purchase:
   - (a) The assets of Corporations B and C, paying therefor with shares of its capital stock.
   - (b) The capital stock of corporations B and C, in which event A also becomes a holding company.
   - (c) Either the assets or the capital stock of corporations B and C, but paying therefor in cash obtained by it from the sale of its capital stock or from other sources.

To illustrate the methods of consolidation, assume the following condensed balance sheets of Corporations A, B, and C:

	A	B	C
Assets	$400,000.00	$200,000.00	$100,000.00
Liabilities	$ 50,000.00	$100,000.00	$ 50,000,00
Capital Stock Issued...	200,000.00	50,000.00	30,000.00
Surplus	150,000.00	50,000.00	20,000.00
	$400,000.00	$200,000.00	$100,000.00

Now, if Corporation A wished to acquire the net assets of Corporations B and C with shares of its capital stock, on the basis of the values indicated above, it would have to provide for an increase in its capital stock of $150,-000.00, since the net assets of Corporations B and C amount to $100,000.00 and $50,000.00, respectively.

After the merger was effected upon this basis, the balance sheets would appear as follows:

	A	B	C
Assets	$700,000.00	$100,000.00	$ 50,000.00
Liabilities	$200,000.00	$ None	$ None
Capital Stock	350,000.00	50,000,00	30,000.00
Surplus	150,000.00	50,000.00	20,000.00
	$700,000.00	$100,000.00	$ 50,000.00

The assets of Corporations B and C are now $100,-000.00 and $50,000.00, respectively, and these assets consist in both cases of the capital stock of Corporation A.

The assets of these corporations (B and C) are naturally reduced because Corporation A paid for its net assets. There is also a corresponding reduction in their liabilities.

If Corporation A purchased the capital stocks of B and C, no changes would appear in the Balance Sheets of the latter companies, and if Corporation A paid for the stocks in cash (assumed available in its treasury), its total assets would not be altered, although cash would be reduced and the account for the investment charged. The amount of the investment would probably equal the net worth of Corporations B and C. Ordinarily, at least, that much would have to be paid for a capital-stock purchase, provided that the companies were successful.

It might be possible also that, if Corporation A had no cash funds with which to acquire the capital stocks of B and C, it would issue and sell a sufficient additional amount of its capital stock to acquire the stocks of B and C, and its assets would then be increased by the amount

paid for this purchase and its capital stock also increased correspondingly. If Corporation A did not sell the additional stocks, the latter might be exchanged for the stocks of B and C, and again its asset and capital-stock accounts would be increased.

No changes would appear in the balance sheets of B and C irrespective of the amounts paid by Corporation A for their capital stocks. This is naturally due to the fact that the shares of stock are purchased from the stockholders of B and C. The stockholders would benefit or lose, all depending upon whether their stock brought more or less than what they paid for it.

Consolidation through New Corporation. A consolidation effected through the creation of a new corporation would be formed in somewhat the following manner:

1. Corporation A is newly organized to consolidate Corporations B, C, and D.
2. Corporation A, in order to effect the consolidation, would either purchase the assets or capital stocks of Corporations B, C, and D with cash or with its shares of capital stock. The consolidating corporation, after incorporation, could:
   (a) Sell its capital stock to the investing public, thereby putting cash into its treasury, and use the cash to purchase either the net assets or the capital stocks of the other corporations.
   (b) Issue its capital stock in payment of the net assets of the other corporations, or in payment to the stockholders of these corporations for their shares of stock.

Assume that Corporation A sells its capital stock of $400,000.00 at par to the public, and purchases the net assets of Corporations B, C, and D for cash at the following figures:

Corporation B	$100,000.00
" C	150,000.00
" D	75,000.00
	$325,000.00

If these values represented the net worth of the three companies, then their balance sheets would show cash

balances as above indicated, no liabilities, and net worth equal to the cash, in each case. The net worth would be composed of their capital stock and surplus accounts. If the object of such a consolidation was to close up the business of these corporations, the cash would be used to pay the liquidating dividends to the shareholders. If the object was to finance the corporations, a consolidation created in this way would be a success for the purpose because the entire funds obtained by Corporation A for the purchase of the net assets of Corporations B, C, and D would be cash in the hands of these latter corporations.

Although Corporations B, C, and D would in such a case probably pay a rental to Corporation A for fixed properties used by them, the liquidation of the net assets into cash might afford an exceptional opportunity for business expansion. Naturally, the consent of stockholders would be necessary in a transaction of this kind. Corporation A, having raised $400,000.00 from the sale of its capital stock, has thereby been able to distribute this money (or the part thereof needed) to the other companies as cash working capital, and has itself been able to retain $75,000.00 thereof for a similar use.

Had Corporation A used the $400,000.00 to purchase the capital stocks of Corporations B, C, and D, no particular benefit would have come to these corporations, because the status of their assets and liabilities would not have been affected, and the money, instead of becoming working capital, would have gone into the pockets of the individual shareholders of Corporations B, C, and D. The result would have been merely a substitution of stockholders, and Corporation A would, unless it became an operating company also, be merely a holding company.

If Corporation A had acquired the net assets of Corporations B, C, and D through its issue to them of its shares of capital stock, no working capital would have been contributed and the latter three corporations, instead of showing various assets and liabilities, would

carry as assets their individual investments in the capital stock of Corporation A. There would, of course, be no particular advantage to such a type of consolidation unless Corporation A were also an operating company, and Corporations B, C, and D expected to obtain benefits through the conversion of their net assets into the capital stock of Corporation A. It should be remembered that such a conversion would not bar these companies from operations and would, in fact, give the three of them a larger control over Corporation A, and thus, naturally, control over the net assets acquired by Corporation A from them.

Holding Company Organized for Control Only. The object of a holding company is to control, through complete or at least majority ownership of the capital stocks of various corporations, the policies and businesses of these corporations, known as subsidiaries, and to provide a convenient means of distributing the profits of these corporations to the stockholders of the holding company. A pure holding company is not an operating company and its only real assets are the stocks it owns in its subsidiaries. Therefore, the only income of a pure holding company is in the form of dividends received from the subsidiaries. As the pure holding company is not in operation it has very few expenses. There may be some of an administrative or corporate nature, but ordinarily these are negligible. The holding company receiving only dividends, in its turn, disburses these dividends in the regular way to its own stockholders.

A holding company may acquire the capital stock of the subsidiaries either by issuing its own stock therefor, or by cash purchase. If by cash purchase, the holding company would naturally first have to sell its own capital stock for cash and then use the latter to purchase the capital stock of the subsidiaries. If the holding company acquires the subsidiaries' capital stock through the issue of its own shares, the stockholders of the subsidiaries

become stockholders of the holding company, whereas, if the holding company sells its capital stock in order to secure cash for the purchase of the subsidiary corporations' stock, the stockholders of the holding company would in all likelihood be an entirely independent group. It may be said, therefore, that the procedure in these particulars is largely determined by the objects of those seeking consolidation.

When a consolidation is fully effected it is quite simple to understand that a single large unit has come into existence and has supplanted, from the proprietorship standpoint, a number of formerly independent units. Therefore, operations between units, which were previously separate, really become internal operations, and interunit claims are really not claims at all, since it is quite impossible to conceive of an individual concern (the consolidation) having claims against itself or owing money to itself. Investments of one unit in the capital stock of others also "wash out."

In preparing a consolidated Balance Sheet, a statement must first be prepared showing in columnar form the balance sheets of all the units, and in this statement the necessary eliminations must be made. The simplest process of elimination is found in connection with consolidated balance sheets based upon the existence of a pure holding company.

Ordinarily, in a process of consolidation, the capital stock of the subsidiary companies could not be acquired at par, especially if the companies showed a considerable surplus. However, the excess paid by the purchasing corporation does not necessarily represent a direct purchase of surplus. It measures the value of the capital stock in excess of par which in turn may be said to measure, in a limited sense, the earning power of the subsidiaries. We say "in a limited sense," because the surplus of a corporation is not fully representative of earning power. The surplus is merely undistributed earnings which may

represent only a small part of full earning power or which may at times represent more than earning power.

Goodwill in Book Value of Stock. It has been customary in the case of consolidations to charge excesses paid over book value of stock or over book value of assets acquired to goodwill or, at least, to reflect such excesses as goodwill when the consolidated balance sheet is prepared. Have these excesses really any relation to goodwill? If they do not, why should they be charged to goodwill? If not chargeable to goodwill, to what account should they be charged?

When a corporation not involved in a merger or consolidation incidentally purchases stock of another corporation, any excess paid over par or over book value becomes part of the investment cost and is consistently carried on the books as such. No charge, of course, is ever made to goodwill. But, when upon consolidation one corporation purchases the capital stock of another at more than book value, the excess is either immediately treated as goodwill, or at least, it is so treated when a consolidated balance sheet is prepared. Would it not be more accurately descriptive to call this excess either "Premium on Subsidiary Stock" or "Excess over Book Value of Subsidiary Stock"?

Goodwill is proved earning power in excess over normal interest returns on an investment, and it is only indirectly related to book value of stock. A company may have a large surplus (large book value of stock) and yet may have no goodwill and, vice versa, a company may have goodwill and yet have a very limited surplus. For example, a corporation may have earned only 6 per cent on its investment for a long period of years, and may have permitted its earnings to accumulate into a considerable surplus account. That corporation has no goodwill, because goodwill represents earning power in excess of that required to yield a safe return on the investment. On the other hand, a corporation may have earned 15

or 20 per cent on its investment and may have distributed most of its earnings as dividends, because little working capital may have been needed. That corporation would have a very small surplus and yet a very large goodwill.

It is quite evident that no goodwill should be set up when stock is purchased at book value even though it may be considerably higher than par value. Again, stock purchased at a price in excess of the net worth may or may not contain a goodwill element even though it has been the practice among accountants to charge the excess over net worth to goodwill. Book value of stock is fixed by the sum of the capital stock and surplus, and when set up by the purchasing corporation as the cost of its investment in a subsidiary corporation it should be "washed out" or eliminated in the preparation of a consolidated balance sheet by being offset against the subsidiary corporation's capital stock, and surplus accounts.

Stock of Subsidiary Purchased Below Book Value. At times, the capital stock of a subsidiary may be purchased at less than book value, and apparently the purchasing corporation has made a profit in the transaction. Accountants have been in the habit of treating such gains as either capital surplus of the consolidation or, if any goodwill has been set up anywhere in the consolidation, as a reduction of that goodwill. There is hardly any objection to be raised if the excess values acquired are credited to capital surplus provided the values are real and beyond question, but why any goodwill, which may be found anywhere in the consolidation, should be reduced on account of such a gain is a rather difficult proposition to understand. Why should any goodwill legitimately acquired and properly treated on the books become minimized because through business acumen an advantageous purchase of another corporation's capital stock was consummated? If, of course, the purchased subsidiary itself has a goodwill account, the gain on the purchase of its capital stock should be credited against

that specific goodwill or, if some of the tangible assets are found to be overvalued, the credit should be against these; i.e., if no goodwill account is carried.

In this discussion it must be remembered that the capital surplus referred to is capital surplus arising out of the consolidation. The corporation purchasing the capital stock at less than its book value does not make any entries on its books beyond the purchase price of the stock, and this it carries as investment. But in preparing the consolidated balance sheet the net worth of the subsidiary will exceed the investment of the purchasing corporation and it is this difference which is reflected in the consolidated balance sheet.

In an assumed case where $50,000.00 of net worth (capital stock and surplus) has been acquired through the purchase of the subsidiary's capital stock, for $40,000.00, the elimination journal entries, for purposes of consolidated balance-sheet preparation, would be as follows:

Net Worth Subsidiary:		
(Capital Stock and Surplus)	$50,000.00	
To Investment Account—		
(Purchasing Corporation)		$40,000.00
Capital Surplus of Consolidation		10,000.00

If, in some cases, it is found, or there is a suspicion that the assets of the purchased subsidiary are overstated, the difference between the investment account and the net worth of the purchased subsidiary should be credited to a Reserve for Subsidiary Assets Valuation Account rather than to Consolidated Capital Surplus. After the real values are later determined, the Reserve Account can be properly adjusted.

Minority Interests. In effecting consolidations, it is not always possible for the purchasing corporation to acquire all the capital stock of the subsidiaries. It may be able to obtain a majority interest only, in which event so-called "minority stockholders" will still be members of

the subsidiary corporations. The interests of such minority stockholders must naturally be protected, and their proportionate interest in the surplus of the subsidiary must be displayed in the consolidated balance sheet. These minority stockholders are also entitled to their proportionate share of profits made by the subsidiary after consolidation, because the ownership of the majority stock by another corporation does not affect the status of the subsidiary as a corporation. There has been merely a substitution of stockholders, and no change in corporate status or the rights of stockholders has occurred.

If the subsidiary company had a deficit instead of a surplus, the minority stockholders would, of course, have to bear their proportionate share thereof which might be shown as a partial impairment of their capital stock interests. The deficit to be absorbed by the purchasing corporation, assuming that net worth of the subsidiary was the basis of the stock purchase, would appear in the investment account of the purchasing corporation, which would be eliminated in the preparation of the consolidated balance sheet.

Intercompany Accounting after Consolidation. Consolidations are quite generally effected in order to bring into proper juxtaposition the operating factors of closely related businesses or industries, and to produce various economies through the elimination of certain personnel groups. Through consolidation with other corporations, a manufacturer, for example, may be able to gain control over his essential raw materials or he may be able to eliminate troublesome competition. In forming consolidations it is, therefore, quite necessary to observe laws which prohibit mergers that are in restraint of trade.

Consolidations again may be primarily economy instruments. One executive group instead of many may be able to administer the affairs of the consolidated business, or one sales force may be able to market all the commodities of the group of corporations where for-

merly each corporation had its own sales force. More economical means of manufacture and distribution may be devised through processes of functional redistribution. In other words, the formerly independent corporations after consolidation become much like operating departments of a single business and these they virtually are. The transactions between consolidated companies are, therefore, quite logically treated like interdepartmental operations, that is, as operations between integral units of a single business.

Intercompany relations express themselves most often through the processes of sale and purchase, that is, the sales made by one company become the purchases of another in the consolidation. This is, of course, equivalent to a transfer of merchandise between departmental units, that is, it must be regarded as an internal transaction not affecting the outside world. Such intercompany sales must therefore be eliminated in a consolidated profit and loss statement. If not eliminated such sales would be again repeated by the subsidiary which had made the purchases and which would sell the commodities to outside customers.

If, for example, Corporation A sold $50,000.00 of its commodities to Corporation B (these corporations being consolidated), Corporation A would include this amount in its sales and yet Corporation B would sell these same commodities to outsiders in either their original form or in a converted form. Consequently only the sales to outsiders must be considered as sales when dealing with the units consolidated. The company making the purchases from an affiliated company must at the end of a fiscal period, when a consolidated statement is being prepared, determine the amount of its inventory which represents such purchases and must eliminate therefrom the percentage of profit and reduce it to cost or market, whichever is lower, that is to the cost or market figure used as a basis in valuing the inventory of the selling

corporation. By this process that portion of the inventory of the purchasing corporation will assume the status of an extended or transferred inventory of the selling corporation.

In the balance sheets of affiliated corporations the transactions of sales and purchases between the corporations are expressed by accounts receivable and accounts payable, respectively. From the viewpoint of the consolidation, these accounts do not exist because of the very simple principle that one cannot owe money to oneself. Such accounts must, therefore, be eliminated in the process of preparing the consolidated balance sheet. The same procedure would be applicable to loans made between affiliated companies and the interest paid on such loans would be eliminated both as expense and as income. In preparing the consolidated surplus account, intercompany dividends would also disappear because the dividends received by one corporation would be offset by those which were paid by another. In the consolidated balance sheet dividends payable would be set off against dividends receivable, if these were intercompany items.

Audit of Holding Companies. The audit procedures already discussed, of course, apply in the audit of holding companies as well as in the audit of other corporations. The auditor's investigation in the case of a holding company, however, must include the accounts of the subsidiaries. If this is not done, the audit certificates should be qualified accordingly. Where the holding company controls from 75 to 100 per cent of the voting stock of a subsidiary, the auditor should insist on the preparation of a consolidated balance sheet and income account eliminating all intercompany transactions. Investments in companies amounting to less than 75 per cent of their voting stock may be shown on the consolidated balance sheet at cost.

The auditor should make a careful analysis of dividends

received from subsidiaries. Such dividends may be distributions of subsidiary income earned since the date of acquisition or of surplus purchased at acquisition. In the latter case, the Investment account should be credited.

In preparing consolidated statements, the holding company's share of the increase or decrease since acquisition of each subsidiary's surplus should be taken up as part of the holding company's surplus. The auditor should make sure that intercompany items in transit are properly accounted for and should recommend the keeping of complete records of intercompany transactions at both cost and selling price to facilitate the preparation of consolidated statements.

Test Yourself on Essential Points

1. Define a consolidated balance sheet. (From American Institute Examination.)

2. Outline three methods of effecting a consolidation.

3. What is the purpose of a company organized to hold stock in subsidiaries, without engaging in the actual operations of the business?

4. In the process of consolidating several competing establishments, Corporation A, the holding company, acquires $98,000.00 out of a total of $100,000.00 of the capital stock of Company B. At the time of the purchase the balance sheet of Company B showed surplus and undivided profits of $50,000.00. Company A bought the stock of B at 200 per cent. Almost immediately after the purchase Company B paid a cash dividend of 25 per cent. In what ways would the payment of this dividend affect (a) the balance sheet of B; (b) the balance sheet of A; (c) the consolidated balance sheet of A and its subsidiary companies? Give reasons for your answer. (From American Institute Examination.)

5. Explain why intercompany sales should be eliminated in the presentation of the consolidated profit and loss statement.

Chapter XXVI

AUDIT OF SPECIAL BUSINESS TYPES

Public-Service Companies

Governmental control and regulation of public service companies—Railroads—Passenger revenue—Freight revenue—Electric roads—Interurban—Electric railways—Depreciation—Revenue.

Governmental Control and Regulation. Ever since the creation of the Interstate Commerce Commission in 1887, the Government control and regulation of public utilities have greatly increased, not through the larger powers given the Commission in 1906, but as much by the growth of state regulation of corporations of this kind operating purely within state limits. The various amendments made to the Interstate Commerce Act extended the powers of the Commission so that now steam railroads, express companies, sleeping-car companies, certain water carriers and pipe lines, electric railways, telephone companies, and other concerns whose activities are interstate are under Commission rules.

All the states have, in one form or another, commissions which regulate rates, provide classification of accounts, grant franchises, pass upon bond or stock issues, and control to a greater or less degree the internal operations of the various state public utilities. Federal control was also greatly increased by the Public Utility Act of 1935, one of the most important of the Federal economic acts.

In auditing the accounts of any public-utility company, the auditor serves not only the corporation, but also stands between the corporation and the public. It becomes his duty to see that the corporation carries out fully the provisions of state or national laws. If he has not already done so, it is imperative that he become fully acquainted with the laws and commission rules affecting the particular case under investigation. If care-

less at all, he is not performing his duty as a professional man or as a citizen. He should reveal all acts in any way contrary to law or public welfare.

RAILROADS

The latest classification of accounts laid down by the Interstate Commerce Commission for steam railroads is sound from the public accountant's point of view. Throughout an audit, therefore, the compliance with classification rules must be checked and every charge to capital or income carefully scrutinized. The verification of income is of equal importance.

Passenger Revenue. The principal income of railroads consists of passenger and freight earnings. Revenue from passenger traffic comes almost entirely through local agency ticket sales. A small amount comes from cash fares collected by conductors. The report of tickets sold by station agents, which reports should indicate ticket numbers and destination, must be accompanied by the cash collections or receipted deposit slips (if local bank accounts are maintained) and should be compared with the canceled tickets turned in subsequently. Such checks are adequately provided in the department of the auditor of receipts. Accordingly, the public accountant may confine his verification to a number of exhaustive tests. The sum of canceled tickets, unused tickets returned for refund, and tickets sold at stations, outstanding at the end of any period, should agree with the station agent's report of tickets sold. Since an audit generally occurs at a time sufficiently subsequent to the close of a period, the uncanceled or outstanding tickets can as a rule be readily verified. They are generally in before the audit is completed. All tickets of whatever description should be numbered consecutively in series, in order that they may be readily accounted for. In fact, this feature may almost be reduced to a ticket inventory basis, the station agent being charged with all tickets issued to him and held accountable for them in his station reports.

The canceled tickets will form the final check on the amounts collected at the stations.

Interline accounting systems must be carefully investigated by the auditor. A company collects a great many tickets issued by other roads and, of course, issues many tickets collected by other roads. In the one instance it has a claim, in the other it has a liability. The station agent's report should therefore indicate all tickets sold to destinations on other lines and these should be accompanied by the duplicates, or other evidences thereof, so that the home office may at once record its liability to the other road. Payments for interline claims should not be made until the canceled tickets have been returned and checked against the station agent's reports and duplicates. The auditor should verify all outstanding claims against other lines by requesting their certificates; he should verify the amounts due other roads in the same way.

Freight Revenue. The income from freight traffic is the largest item of revenue. This account is to be constructed, as in the case of passenger income, from the reports of station agents indicating the freight received and the freight forwarded. These reports must be tied up with the cash collections, the way bills, and the interline references. The auditor may not have to check all these reports in detail, but he must examine the system of internal check thoroughly, so as to make sure that an effective control is maintained by the head office over all the station agents and any others handling the funds of the company. The agent's accounts ought periodically to be audited by traveling auditors or by professional accountants. Uncollected items in the agents' accounts deserve very close scrutiny, and any old or suspicious looking balances carried by the agents must be run down. All accounts with agents per general books must be reconciled with their reports.

In analyzing or vouching the disbursements, the most vital feature to be observed by the auditor is the correct-

ness of the charges with reference to Capital or Operating accounts. Charging construction costs to Maintenance will inflate expenses and consequently profits will appear small and secret reserves will result. At the same time such a condition might lead to agitation for rate increases which, if granted, would fleece the public. The error of charging maintenance expense to Capital would inflate profits and would be damaging to the stockholders. All capital and construction accounts should, therefore, be carefully analyzed by the auditor. On most roads, there are specific construction departments which are separate from the divisions engaged in maintenance work. This separation of functions has considerably improved the situation from the accountant's view.

ELECTRIC ROADS

Electric roads are readily classified as follows:

1. Interurban lines.
2. City street railways.

Interurban Lines. The accounts of the two vary considerably and their sources of revenue are quite different. Street railways come under the supervision of city laws and state commissions. Interurban roads may come under both of these, and if they carry on interstate traffic will be subject to Interstate Commerce Commission regulations. The activities of interurban lines are coming to resemble more and more those of the steam roads. The only marked differences are in the motive power, the rolling stock, and the variety of sources of income.

The interurban lines carry freight, they act as agents for the express companies, they carry passengers, and maintain regular stations for the sale of tickets and the convenience of the public. Besides, the interurban lines in many localities own and operate amusement parks. They sell electric light and power and obtain revenue from advertising space let in cars. This larger field of

operations perhaps makes the audit of interurban electric roads somewhat more complex than the audit of steam road accounts.

In any audit it will, therefore, be necessary to gain familiarity with the classification of accounts in use and with the accounting system generally. On roads with short runs, where no stations are in use, the income from fares is tabulated from the conductor's traffic sheets. These sheets indicate the cash fares, the tickets, and the passes collected on each run. This same procedure is followed by city railways. The auditor should make a thorough test of the traffic sheets by comparing them with the daily summaries and the cash book entries. Incidentally, this test will also afford a proof of the conductors' and the motormen's pay roll. No names should appear on the pay roll unless there are traffic sheets bearing the same names. Since every conductor is usually accompanied by a motorman, the pay roll for motormen can be checked simultaneously. Traffic sheets should be on hand for every day of the year and any omissions must be thoroughly investigated. Of course, omissions are possible. The line may have broken down, heavy snowfalls may have made traffic impossible, or strikes may have prevented operations.

Receipts from the sale of tickets may be verified more readily than in case of steam roads because there are no interline sales. In many instances, where the tickets are numbered consecutively in series according to destinations, the income can be verified by taking the difference between the first and the last numbers of each series issued and multiplying the result by the rates applicable from point of origin to destination. Such a total check is very effective, and as a rule will be complicated only by tickets in the hands of conductors that are unsold or unaccounted for. However, if daily checks exist on tickets issued to conductors, a reconciliation account can readily be prepared and the income verified.

The income from ticket sales at stations of the larger interurban lines should be verified by the same methods used in the audit of steam-road accounts. Income from freight traffic must also be treated in the same way. Miscellaneous income from amusement parks, car advertising, and the sale of scrap must receive special attention. Much of this income is irregular or seasonal, and it should therefore be thoroughly safeguarded. The income from amusement parks consists, as a rule, of leased privileges which are paid in the form of rent. All the rental contracts must be scrutinized and the income compared therewith. Gate fees are rare in connection with these amusement parks, but, where a road charges admission, the turnstile records or ticket numbers should afford an ample check.

Electric Railway Accounts. Probably the most important feature in the audit of electric-railway accounts is the verification of expenditures, especially with reference to their distribution as between capital and income. Frequently purchases for maintenance and construction are identical and, therefore, it is difficult to distinguish them. Some companies follow the practice of charging all such purchases to a Suspense Account, awaiting an authorized report from the proper department as to the final disposition, that is, as to whether the material was used for repairs and maintenance or for new construction. Some companies maintain fairly well-developed construction cost records, and in such cases the auditor can more readily verify the construction charges.

Where detailed cost records are lacking, the absolute verification of these charges is practically impossible. In such cases very thorough inspection must be made of the contract file, the pay rolls, and whatever stores records are available. A fair total check may be obtained by a comparison of operating expenses per car mile with the same expenses of prior periods. If these expenses decrease considerably, there is justification for suspecting

that operating or maintenance charges have been capitalized. The comparison can then be made in more detail so that the differences may be allocated to certain accounts. An analysis of the latter will generally reveal the errors. The auditor should also give the proper advice with reference to the need for adequate cost records and ledgers. These may be operated at very little expense, and can readily be controlled through the general books.

Depreciation. Proper amounts of depreciation should be provided for all operating property, even though the company may have fallen into the error of thinking that their franchise values increased sufficiently to offset any depreciation. The charge of depreciation into operations and the consequent recovery thereof through revenue is the factor which will procure funds for the rehabilitation of the company's property. The increase in franchise values, even if evident, will never secure these funds unless the franchises are actually sold.

Certain portions of reconstruction charges may be capitalized, even though they might ordinarily be charged against the depreciation reserve. Where the reconstruction actually enhances the revenue producing power, the excess of reconstruction over original cost may rightly be capitalized. It is conservative policy to treat reconstruction of run-down property purchased as a capital investment—especially if the expenditures will produce additional revenue and if proper depreciation is provided and charged against the revenue accruing therefrom.

Quite a number of street railways and interurban lines sell coupon tickets or books which reduce the fare per ride. Tickets sold in quantities are, as a rule, not redeemable. Hence there is little reason for considering the unused tickets as a current liability. Moreover, the outstanding unused tickets would probably be very nearly the same between periods. Consequently a proper check of the tickets sold and of the income derived therefrom

should suffice from an accounting standpoint. Where, however, coupon books are redeemable if not used wholly or in part, the company should at least carry a memorandum account covering the contingent liability. If more elaborate control is desired and it has been found that redemptions are considerable, the coupon books sold should be set up as a liability and the latter account translated into income as the canceled coupons are received.

Income from Advertising. Income from advertising in street cars and stations is, as a rule, easily susceptible of verification, because the advertising spaces are generally sold or leased to advertising agencies for specific amounts under contract. If the company itself rents out advertising space, the contracts should be carefully inspected and the advertising spaces in the cars and stations should be inventoried. Unused spaces should be properly accounted for. As a rule, the advertisers themselves see to it that the spaces they engage have been fully used; therefore an actual inventory of spaces utilized will reveal any irregularities. The revenue should, of course, be checked against the rates.

Damage Suits. Damage Suits against street railways and interurban lines are common, and it becomes the auditor's duty to determine the status of these suits. Proper reserves or liabilities must be provided, the entire expenses of litigation must be ascertained, and, if necessary, the company's attorneys should be interviewed or written to in order to determine the extent of unsettled claims and the fees payable. The larger companies maintain their own legal or claim departments and, in such cases, the departments themselves will yield all necessary information. Threatened suits must be as carefully covered as those actually in litigation. It is advisable, where the practice is not already followed, for the auditor to recommend the establishment of an accident or damage claim reserve account based upon established

percentages of these expenses to operations. The reserve must of course, be ample to meet all ordinary contingencies of this nature.

Test Yourself on Essential Points

1. You are called upon to audit the accounts of a large railroad system. State shortly what its sources of income are, what records you would expect to find containing the details of them, how they are generally summarized in order to bring them on the books of the company, and how you would satisfy yourself of their accuracy. (From American Institute Examination.)

2. How would you proceed to verify the revenue of a street railway company? (From C. P. A. Examination.)

3. A banker wishes to purchase a large portion of the bond issue of a street railway corporation and employs an accountant to examine the accounts:

   (a) What is the information to be given the banker?

   (b) What important accounting matters should be given special attention and how? (From C.P.A. Examination.)

4. If upon investigation you find a large damage suit pending with an electric railway company, how would you as auditor deal with the situation?

Chapter XXVII

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Income of telephone companies—Local service revenue—Income from advertising—Depreciation—Electric light and power companies—Meter records—Sales of appliances—Depreciation—Gas companies—Production and consumption—Water companies.

TELEPHONE COMPANIES

In most of the states, telephone companies have passed under the jurisdiction of public-service commissions. These regulate the rates and the nature of service expected, and in many instances have proposed account classifications. These conditions appreciably facilitate the auditor's work.

The income of telephone companies may be divided into the following classes:

1. Local service revenue.
2. Long-distance calls.
3. Income from investments.
4. Miscellaneous income from rentals of property, sale of scrap, telephone-directory advertising, etc.

A clear distinction should be observed between local-exchange income and long-distance tolls, and the expenses chargeable should be accurately distributed or proportioned between them.

Local Service Revenue. Income from local service is recorded in the contract ledger, which is ruled so as to provided for monthly charges for an entire year. The original charge to a customer is made in this ledger and is often a carbon of the actual bill mailed out to him. The totals are transferred each month to the general ledger controlling accounts for customers' ledger and local service revenue. This form of ledger provides a means of carrying balances forward from month to month, so that a trial balance may readily be taken or verified. It will also show at a glance the current accounts as distin-

guished from the old accounts, thus aiding in the construction of an adequate reserve for doubtful accounts.

The largest expenses by far in telephone companies are salaries and wages. The pay rolls must therefore be thoroughly checked. In large cities the number of switchboard operators alone runs into thousands. The pay rolls for these should be compared with the switchboard requirements in each exchange. Each operator has charge of certain sections only, and a test check of this kind will very readily disclose any padding.

As taxes form a considerable item of expense, the tax bills should be carefully examined. The auditor must also assure himself that the full liability for accrued taxes is included in the books.

Income from Advertising. Income from the classified advertising section of the telephone directory must be verified. In some of the larger cities, where separate classified directories are issued, the whole advertising section is turned over to some advertising agency, the company receiving the income therefrom under contract stipulations. Such contracts must be examined. When the company sells the advertising space itself, the whole revenue may be verified by making an inventory of the advertisements in each issue and multiplying the spaces or insertions by the rates applying to the various kinds of advertising.

The revenue from public pay stations may be accounted for either by checking the call records (or lists of calls received from these stations at the various exchanges) or, where slot boxes are used, by comparing the record of slot-box collections with the call sheets at the receiving exchanges.

Depreciation. The depreciation of telephone property is heavy. For the larger exchanges various state commissions, including the Wisconsin railroad commission, allow an annual depreciation rate of 7 per cent; in the

smaller exchanges a larger rate, ranging from 8 to 10 per cent, is permitted. The auditor should see that the rates recommended by the commission are observed. Unusual charges for damages caused by storms may be partly deferred and should be equitably prorated during the period decided upon. The period of deferment should not be too long drawn out, because damages of this nature are of fairly frequent occurrence.

ELECTRIC LIGHT AND POWER COMPANIES

Production and Revenue. The income of electric power and light companies consists of power, light, and appliance sales. A new feature appears in connection with this type of public service company which has not been discussed before, namely, the manufacturing operations. There is naturally a close relation between current manufactured and current sold, and the two should be reconciled as closely as possible. The enormous quantities of power generated and sold by the electric companies of the large cities make it almost impossible to secure an entire reconciliation between production and consumption. The auditor can, however, make sufficiently exhaustive tests to eliminate to a very large degree the evil of tapping the current. The records of current sold as reported to the general office by the meter-readers should always be compared in totals with the current production.

Records of Meter-Readers. The records of meter-readers are the basis for the charges to consumers, as both the bills and the consumers' ledger are constructed from these records. The better form of ledger, now generally in use, provides one account on a page, instead of the horizontally arranged form where dozens of names appear on one page with the monthly charges and balances carried across the sheet. The one-name-per-page ledger eliminates the necessity of writing up each account at the beginning of each year and may be used for a number of years. The balances per consumers' ledger must

agree with the controlling account and the entries should be compared in a number of instances with the meter-readers' records.

Sales of Appliances. The sales of appliances should be verified through the inventories, that is, on a quantity basis as well as by values. A Perpetual Inventory Account should be kept with all the different types of appliances. The auditor should check the purchases of appliances into the inventory account. He should add these to the beginning inventory, and should deduct from the sum of the two the inventory at the end. This will give at once the quantities of each type of appliance sold, and as the prices charged for these are publicly known or are prominently advertised by the company, no difficulty should be experienced in verifying the total income from this class of sales.

Depreciation. The audit of the manufacturing accounts should receive very special attention and particularly with reference to depreciation of equipment. The rates for depreciation should be high, because the element of obsolescence is quite pronounced. It is commonly known that some of the largest producers of electric power and light have been forced in recent years to throw out an enormous amount of equipment because of its obsolescence. A large producer has said that this was also necessary in order to make a fair profit because of rate regulations which were based upon production costs under the most approved methods.

GAS COMPANIES

The accounts of gas companies are similar to those of an electric company, and the problems confronting the auditor are therefore largely the same.

Gas Production and Consumption. There are, however, a number of elements peculiar to gas companies with reference to the manufacturing department. A company manufacturing coal gas sells not only the gas but the

by-product—coke. Gas coal of certain grades is supposed to produce fairly even quantities of gas measured in cubic feet and stored in gas tanks. The auditor should test both the quantities of gas produced according to these standards as well as the supply of coke, and by means of such verification of production he should be able, after applying beginning-and-end inventories, to come fairly close to quantities which should be accounted for through the sales. The gas once accounted for as having been produced and delivered to the gas tanks can from there, after making a percentage allowance for normal leakage, be quite accurately traced to the consumer or the consumption records. Any great variation between production and sales should be carefully investigated. Tapping of gas mains is by no means an unusual crime. The offense can generally be traced through the subsidiary local distribution meters.

In recent years there has been a much more extensive use of natural gas. The special problems involved in the audit of a natural gas company are similar to those in the audit of mines, as discussed in Chapter XXXIII. The auditor should make a careful study of the contract under which the gas lands are acquired. The interest of the company may be by outright purchase, by lease, or under the terms of royalty contract. If the lands are acquired by lease, the buildings and equipment should be amortized over the life of the lease. Compliance with royalty agreements should be checked. Any expenditures incurred in developing the land, including traveling expense, legal, and geological fees, are properly capitalized. Lease records are maintained to show all details charged to lease accounts. The records of producing properties are segregated from those on which production has not been started.

WATER COMPANIES

Water Rates. Water rates are usually fixed by the number of rooms of a dwelling or apartment, by meter

measurement, or on the basis of facilities used by the consumer (i.e., for hose faucets, kitchen faucets, and bathroom faucets. Privately owned companies generally resort to the meter rates, and municipally owned plants are rapidly adopting the same basis. The charges to consumers on a meter basis are treated in the accounts in the same way as in electric light, power, and gas companies, so that the auditor is confronted with the same records for recording income. Where flat rates are charged, the auditor must see that the company carries a liability on its books for the income not earned, flat rates as a rule being paid in advance during different periods of the year.

Water rates take on the status of tax claims in the case of municipally owned plants, so that the loss from bad debts is very small. In many states a claim of this kind, if unpaid, becomes a lien on the property.

Test Yourself on Essential Points

1. Name four general classes of income for a telephone company.

2. Outline the large items of expense in a telephone business and state how you would proceed to verify their correctness.

3. Explain the difficulties in securing a complete reconciliation between production and consumption in an electric light and power company.

4. How would you account for gas production and consumption?

5. What are some of the special points to be considered in the audit of a water company?

Chapter XXVIII

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Financial Institutions

National and Federal reserve banks—Audit of cash and securities—Audit of state banks.

The audit of financial institutions, though in many respects quite simple as compared to other audits, is probably of far greater importance because of the relation of financial institutions to the public. Their manipulations and functions are so important that if improperly conducted, they may plunge a nation into a panic. This condition necessitates close governmental supervision and requires a high degree of ability and care on the part of the public accountant.

It will be quite impossible to cover more than the most important types of financial institutions in this discussion, and even within these limits we must confine ourselves to generalities and essentials. The financial institutions to be discussed have, therefore, been limited to the following:

1. Banks:
   - National and Federal reserve.
   - State.
   - Savings banks.
   - Trust companies.
2. Bond and stock brokers.
3. Building and loan associations.
4. Miscellaneous financial institutions.

NATIONAL AND FEDERAL RESERVE BANKS

In making an examination of a national bank an auditor should not, except in the case of a special investigation, regard himself as engaged by the officers or interpret his efforts as being directed by them. He should represent the board of directors, the stockholders, and the depositors. Incidentally, since national banks are

under government supervision, he should view his work as supplemental to that of the national bank examiner's and in this way not only serve the government but arouse it to some of the important defects in governmental examinations.

All national banks and state banks belonging to the Federal Reserve System are required to insure their deposits with the Federal Deposit Insurance Corporation. State banks insured by the Corporation are also audited by Federal examiners. The auditor should check the premiums which are required to be paid every six months, based upon the bank's average total deposits.

Audit of Cash and Securities. In auditing a bank of any kind the balance-sheet accounts must first be considered. These accounts reflect the bank's stock in trade and fluctuate widely from day to day. The audit of the cash and securities comes first, and the following procedure is recommended:

1. Very few of the bank's officers and none of the employes should know of the audit.
2. A sufficient number of assistants should be employed by the auditor so that every clerk in the bank handling cash or securities can be checked up simultaneously, as a safeguard, and in order to dispose rapidly of this portion of the work. (In order that the bank's activities may not be disturbed, the audit should be started preferably on a Saturday noon at closing, thereby permitting the auditors to work Saturday afternoon and night and all day Sunday, if necessary, to verify the cash and securities before Monday morning.)
3. The first act should be the sealing of all the vaults wherein the securities are kept.
4. The cash and securities in the hands of all the tellers and others must next be counted, and in such a way that they are counted simultaneously. This means a sufficient staff so that all the cages can be handled at once. They must not be taken up in rotation. When handled in rotation it is possible to transfer funds from tellers whose cash has already been counted and verified, to other tellers who may be short. Either the cash count must be begun

simultaneously in all cages, or all cash must be brought to one central point and treated as a unit. No access to the vaults should be permitted during the cash count.

5. After all cash has been counted and the tellers' books verified, the cash should be placed in properly labeled receptacles and removed to the vaults. Checks which are to go to the clearing house must be inspected as to their genuineness and a certificate for confirmation inclosed in each clearing-house envelope, which the clearing house should be requested to mail directly to the auditor in a stamped envelope addressed to himself. The certificate should confirm the checks sent to the clearing house and give detailed information as to any checks returned unpaid.
6. The securities and other papers in the vaults must next be counted and properly segregated. A distinction should at once be observed between securities held as collateral for loans and the bank's own securities. The latter should agree with the general ledger account unless some of the securities are in the hands of correspondents. In the latter event the correspondents should be requested to confirm direct to the auditor the amounts held by them. A certificate should also be requested of the United States Treasurer for bonds in his custody to secure circulation or local Federal deposits.
7. In a federal reserve bank all rediscounted paper must be carefully examined and the local reserve members requested to verify the amounts of such rediscounts. In general this whole feature must be carefully examined so that a strict compliance with the Federal Reserve Act may be observed. The collateral securities deposited must be clearly admissible, as provided by the Act; and they must be very carefuly inspected. The Federal Reserve Act and the rulings in connection therewith should be carefully studied by the auditor before he begins this work.
8. Depositors' accounts form the basis of a bank's existence, and some very thorough tests should be made of the balances in these accounts. Most banks now render monthly statements to customers, the customers being requested to confirm the balances on a confirmation slip inclosed with the statement. The auditor should take this matter into his own hands and should call for all customers' statements. These should first be compared with the

ledger balances and then mailed by the auditor himself, who should inclose his own confirmation certificate to be mailed direct to his office. Tampering with customers' accounts has been largely eliminated by the proper distribution of functions among bank employes. One who handles cash or securities is not given access to the customers' ledgers and, moreover, the ledger clerks are switched about frequently, thus preventing at least any extended manipulation of the accounts. The new ledger clerk, as a matter of self-protection, will make a very through inspection of the accounts before accepting responsibility for his predecessor's entries. A further internal check may be provided by employing a statement clerk who compares the balances in the ledgers with the statement balances and who further receives the customers' confirmations.

The deposits and withdrawals for some time prior to the end of the audit period should be compared by checking the customers' confirmed statements with the ledgers. Any entries in a depositor's account other than for deposits and withdrawals should never be passed by the auditor without thorough investigation, and the proper authorizations for such entries must be produced. The entries for deposits and withdrawals must, moreover, be compared with the receiving and paying tellers' records, respectively. Such comparisons, although they must be confined to tests, are very productive in exposing any irregularities. Checking the depositors' accounts in totals against the tellers' total records of deposits and withdrawals and the totals of clearing house, draft, and certified-check records often reveals differences which may thereupon be localized.

9. The Capital Stock Account per general ledger should be proved by reference to the stock certificate books and the stock ledger. All capital stock indicated as issued should be accounted for through values or cash received.

10. Loans to officers should be carefully examined and the collateral therefor subjected to the same scrutiny as other collateral. All overdue paper for loans to officers or others should be listed and its collectibility ascertained. The signatures of all note makers should be carefully examined and compared with any other signatures available. The financial statements of borrowers should also be inspected and a memorandum made of the extent of loans

to companies in which bank officers and directors are interested as well as of the discount or interest rates extended to such companies. Collateral notes should indicate specifically the security pledged, and the assignment of these securities must be beyond question. The makers of unsecured paper or of demand notes should be requested to confirm the amounts of their loans to the auditor direct; any payments on account but not recorded would thereby be discovered. Confirmations as to amounts and as to collateral security should also be requested from all other borrowers.

11. The income from discounts and interest should be tested both as to amounts and as to rates. The income of a bank is not confined to the interest and discount charged its customers, since there is considerable income derived from its own securities. Unearned discounts must be verified. The Comptroller of the Currency now requires National banks to report discounts as income when earned, and not at the time the notes are discounted as was the prior custom.
12. A bank's expenses do not differ much in nature from the expenses of other business institutions. Salaries form the largest item, and these should be verified in the usual way from the pay rolls. Thorough tests should be made of interest paid on depositors' accounts, and proper receipts should be demanded for postage purchased. The expense accounts of bank officers should be carefully scrutinized and any unusual items reported.

STATE BANKS

Quite a number of states have provided effective control over banks incorporated under state banking laws. Wisconsin is probably the leader in this form of control, and is securing satisfactory results. In that state the control begins with the regulations as to incorporation and continues while the bank remains in business by means of frequent examinations and by control of the bank's investments and loaning privileges.

The audit of state bank accounts does not differ from the audit of national banks except that the state laws and the state banking regulations must be studied by the auditor before he begins his work. The activities

of the management with reference to the connection of their banks with their other interests must be carefully investigated. State banks have in some instances been incorporated as means for financing the incorporators' other business interests. A thorough examination must be made with reference to the adequacy of the bank's reserves.

Test Yourself on Essential Points

1. In making an audit of a national bank, what class of persons does the auditor represent?

2. Outline in detail the procedure for auditing the cash and securities of a national bank.

3. Explain any differences that exist in the audit of a state bank as contrasted to a national bank.

Chapter XXIX

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Financial Institutions (Cont'd)

Depositors' accounts in a savings bank—Verification of securities—Nature of audit of trust companies—Bond and stock brokers—Securities on margin—Collateral loans—Customers' accounts, long and short—Verification of cash and securities—Margin accounts.

SAVINGS BANKS

Depositors' Accounts. There are so many inactive depositors' accounts in savings banks that the most important task in an audit is the verification of depositors' balances. Many of these remain unaltered for months or years, and the opportunity to conceal defalcations, through the manipulation of such inactive accounts, is extensive. For the auditor there is here an imperative duty. He must secure confirmations from the depositors and must request that they be mailed to him direct or he must check the pass books as they are presented.

Verification of Securities. Savings banks are subject to more or less restrictive legislation in the various states. Their investments are limited to certain forms of securities. In many states they do not discount paper or make unsecured loans. They are in this respect quite similar to trust companies. In fact, they are the conservators of the people's savings. Their assets must therefore consist of non-speculative investments, such as bonds and mortgages. The auditor must examine these securities very carefully and verify the income from them. He should, in the case of bonds, determine their market values and their admissibility as investments under the law. Any mortgages on real estate must be recorded and sufficient insurance carried on the property. The insurance policies must, of course, be assigned to the savings bank.

TRUST COMPANIES

Trust companies act not only in a fiduciary capacity, but operate safety deposit vaults, deal in real estate, make real estate loans, and buy and sell bonds. As trustees for bond issues their functions are limited to the collection and disbursement of interest on the bonds and to the enforcement of the stipulations contained in the trust indentures. As trustees for estates, it is their duty to submit to the beneficiaries proper statements of income collected and the expenses of administration, and to pay over to the beneficiaries the net income or to invest it, as the case may be, according to the provisions of the trust agreement.

Nature of Audit. The auditor must satisfy himself that the trust company is fully complying with the terms of all their fiduciary contracts and that accounts to the beneficiaries and principals are regularly and properly rendered. All trust funds must be verified by actual count and inspection of the securities thus held, and from these the income payable to the beneficiaries must be verified. A trust company's income consists of commissions or fees from the trust department, commissions from the real estate department, rents from safe-deposit vaults, and profits from the sale of bonds. The income from all of these sources must be carefully tested. The operations of the bond department should receive rather detailed examination, especially in cases where entire bond issues are purchased to be offered for sale to the public. Such purchases must be in safe investments and the auditor should examine generally all engineer's surveys, legal opinions, and public accountant's certificates and reports submitted in connection with the bond issue.

It is practically impossible to verify the entire income and expenses of a large trust company in detail. The system of internal check and control over the accounts must, however, be satisfactory before an auditor may conclude that only tests will be necessary. The mere

presence of volume is no excuse for making only tests of accounts. Tests are justifiable only where volume is accompanied by unquestionably effective internal audit.

The investments of trust companies must be actually counted and inspected by the auditor and all the income therefrom fully accounted for. It is advisable to count the securities at the very beginning of the audit and at such a time when the client will be least inconvenienced thereby. The importance of proper general ledger controlling accounts for the various departmental activities cannot be overemphasized by the auditor. Each department ought to show a profit and should therefore, if conditions permit, keep its accounts on a proper basis.

BOND AND STOCK BROKERS

Bond and stock brokers, as the name indicates, are primarily middlemen, although in order to have working capital they themselves are as a rule heavy investors in securities which they buy and sell, or use as collateral for bank loans. They buy for customers outright, in which event the securities purchased are delivered, or they carry securities for customers on margin. The proceeds from sales of customers' securities are either remitted to the customers or retained by the broker as deposit accounts if the customers so desire. Interest is allowed the customers on these deposit accounts and they are carried in practically the same way as regular bank deposits.

Securities on Margin. Securities carried for customers on margin are not delivered, but are retained until the customer orders a partial or total sale thereof. The profit on the sale is then credited to the customer's account and the commission earned by the broker is charged. Whenever the customer's marginal security falls below the number of points required, the broker requests additional margin. If the latter is not forthcoming, the customer will be "sold out" and the margin or a part

thereof will be forfeited. The securities carried for customers on margin are used by the broker as collateral for loans or are carried "in the box" until they are sold.

Collateral Loans. As a result, the collateral on loans is constantly changing; therefore it is very important that a statement from the banks be secured immediately when an audit is started. All loans (which are generally demand loans) are recorded separately in a loan register and the list of bonds and stocks used as collateral for each loan is clearly indicated. This list should be copied at once by the auditor and mailed to the bank for confirmation. The confirmation request should cover both the loan and the collateral.

Customers' Accounts. Statements of customers' accounts (generally press copies) are mailed at the end of each month. They show the transactions for the month, the balances and securities long and short at the beginning and the end of the month, and the securities received and delivered. An audit of stock broker's accounts should always start at the close of a month's business, so that the auditor may himself mail to the customer the press copies of their ledger accounts and inclose his requests for confirmation. Before these are mailed an assistant must record from each customer's account the securities long and short under the captions of the various securities as follows:

CUSTOMERS' BALANCES

MISSOURI PACIFIC 5'S

Long		Short	
John Smith	20 M	Tom Brown	15 M
Fred Jones	40 M		

etc., etc.

U. S. STEEL, COMMON

Long		Short	
John Smith	10 shares	Tom Brown	60 shares
Fred Jones	100 shares		

etc., etc.

Verification of Cash and Securities. Simultaneously with the preparation of the long and short schedule from the customers' statements and the preparation of confirmation requests for bank loans and their collateral, the auditor and his staff must at once count all the cash and revenue stamps and check these against the general ledger accounts. He must also, before the next day's transactions occur, examine and list all the securities on hand or borrowed and compare his lists with the general ledger controlling accounts.

The lists of securities on hand (of stocks loaned and borrowed and in transit and of stocks long and short in customers' accounts) should be compared with the stock ledger, and the broker's own long and short securities with the general ledger. All of these comparisons must be made, lists prepared, and confirmation requests mailed before the next day's transactions begin, because the many changes occurring daily make it extremely difficult to iron out any differences occasioned by subsequent transactions. Securities in transit may be readily verified by requesting confirmations from branches at the close of the same day on which the audit of the main office accounts are begun, and by having the audit of the branch accounts started at exactly the same time.

Confirmation Requests. Confirmation requests should be mailed to all customers and to other brokers. Customers' accounts for which no statements are mailed, must be carefully investigated and brought to the attention of the management. The omission of such statements may be perfectly regular, as in case customers have requested the broker not to send statements because of personal reasons, or it may indicate the use of such accounts for illegitimate objects. Unless letters are on file from customers specially requesting that no statements be sent them, it is the auditor's duty either to mail out all statements, irrespective of any excuses on the part of the broker's office force, or to send an assist-

ant to the customer with a copy of the statement and a personal request for the verification thereof.

Margin Accounts. The Margin Accounts must be very carefully investigated. If the margins are insufficient, the matter should be brought to the client's attention. The same care must be exercised in verifying interest and commission charges and the interest paid to banks and other brokers. The income from the client's own securities must be fully accounted for, the bank accounts reconciled, the trial balances of all subsidiary ledgers verified, and all accounts in the general ledger thoroughly inspected.

Necessity for Study of Records and Systems. The books of bond and stock brokers are very different from the books of other business concerns; therefore an auditor should be cautioned to put some study on the subject before beginning an audit of this kind. Often cash journals are used to record cash receipts and disbursements, and securities delivered and received. The cash receipts and securities delivered are on one side (generally the left) and the cash disbursements and securities received on the other. In most other respects the accounts are similar to those of other businesses. The most important thing to do in an audit of stock brokers' accounts is to secure at the earliest possible moment a balance between the lists of stocks and bonds short or long, as per customer's ledgers, and the lists of stocks and bonds deposited with bank, on hand "in the box," and securities in transit. If the auditor has made no error in preparing his schedules and if the accounts are in order, the lists will balance exactly. In order to make an audit of stock brokers' accounts of any value, it must not only be thorough but detailed to a fine degree. The dangers from fraud and error are so great that anything short of a detailed audit is practically worthless.

Test Yourself on Essential Points

1. State how you would proceed to audit the accounts of a bank. (From American Institute Examination.)

2. What limitations are placed upon the kind of investments made by savings banks?

3. What are the sources of a trust company's income and what procedure should be followed to audit such income?

4. In auditing a trust company's accounts, you find that the company is co-trustee for a number of estates. The securities are locked in a safe-deposit box that cannot be opened without the assistance of the absent trustee, who will be away for several months. What precautions should be taken to safeguard the integrity of your audit? (From C.P.A. Examination.)

5. State in detail the work it is necessary to do the first night on the accounts of a firm of stockbrokers, in order to make an audit satisfactory to yourself and allow the routine work of the office to go on the next morning. (From C.P.A. Examination.)

Chapter XXX

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Financial Institutions (Cont'd)

Sources of income of a building and loan association—Procedure for verification—Segregation of profits by securities—Form of cash accounting—Investment companies—Investments at cost—Valuation of investments on balance sheet—Business brokers.

BUILDING AND LOAN ASSOCIATIONS

There have probably been more defalcations in connection with building and loan associations than in any other form of business activity. This condition has been due to "one-man" control over the funds and accounts of these associations. The auditing committees elected by the association members or appointed by the board of directors are, as a rule, amateurs in accounting, and their inspection of the records is therefore quite valueless. The accounts should be periodically audited by reputable public accountants. The audits should be made in detail and at very frequent intervals.

The income of building and loan associations is derived from the following sources:

1. Interest on loans.
2. Premiums on loans.
3. Income from investments.
4. Fines for delinquency in payment of dues and interest.
5. Initiation fees (sometimes credited to a reserve account and returned to the shareholders when their contributions have been all paid in).

Interest on Loans. Interest on loans must be verified from the Cash Account, the notes themselves, and the loan registers. In the larger associations, where the notes are all numbered, each number must be accounted for. The balances due on notes should be verified by correspondence with the borrowers. As the rate of interest

on all loans is the same, the verification of this income is quite simple.

Premium on Loans. Premiums on loans are obtained by a process of bidding by the stockholders, or a premium is charged outright. The minute book of the association should be inspected in this connection, since the making of all loans should be recorded therein. If the auditor has any suspicions with reference to premiums paid for loans, he should not hesitate to take the matter up directly with the borrower.

Income from Investments. In scheduling and examining the investments, which consist chiefly of real estate mortgages, the auditor should at the same time prepare a statement of the income therefrom. The mortgages should be supplemented by the insurance policies assigned to the association and by such documents as are necessary to establish the mortgagor's title. The auditor must also make sure that all mortgages have been properly recorded. All collateral on loans made to stockholders or others must be on hand and should be carefully inspected by the auditor.

Fines. The income from fines must be verified in its relation to the dues and the interest payments. Each member's record of payments must be investigated and each delinquency recorded. To do this effectively the auditor should call in all members' pass books or should inspect these as they are presented at a regular meeting of the association. This method will also afford the best proof of the outstanding capital stock. All the pass books for each series of capital contributions should be consecutively numbered, so as to make it possible to account for all books issued. Whenever delinquencies have been passed without the imposition of a fine, one of two things has occurred. Either the secretary has neglected to impose a fine, which is contrary to the by-laws, or else he has pocketed the amount. It may, of course, be possible

that fines have been remitted in special cases, but the board of directors would have to approve such action and the matter would in that event be covered in the minutes.

Initiation Fees. Initiation or admission fees in the case of building and loan associations are rather uncommon. Where such fees are charged, they are generally credited to a reserve account which becomes available when final distributions are made, or they are used for various specific purposes. In some few instances it may be found that they are distributed with the profits on some pro rata basis.

Segregation of Profits by Series. The profits of building and loan associations should be segregated according to the different series of capital contributions. It is not correct procedure to calculate the profits on a basis of the dues paid in during the year under audit. The accrued profits at the beginning of the year for each series must be taken into consideration as well as the accrued profits from the prior year withdrawn during the year.

To segregate the profits for the year on a sound accounting basis, it is necessary to determine by mathematical formula the average working capital represented by each series of capital contributions. This is a highly technical procedure which will require a careful study of the financial plan. The fundamental principle to be observed is that a clear distinction should be made in the profits accruing to each series of capital contributions.

Cash Accounting. A very convenient and serviceable form of cash accounting is coming into common use. The form is arranged as follows:

The numbers of the pass books are arranged consecutively in a vertical column. The columns spread across the page provide for the entry of dues, fines, or interest paid at each regular meeting. The totals of these col-

SERIES I

Number of Books	Week ending			Week ending			Week ending		
	Dues	Fines	Interest	Dues	Fines	Interest	Dues	Fines	Interest
1									
2									
3									
etc.									

umns will be posted once each week in the general cash book. All other cash received at irregular intervals will be entered in the general cash book direct. The auditor should, of course, recommend that all cash received be deposited intact in the bank and that all expenses be paid by check. The total of dues received will be posted once monthly from the general cash book to the Capital Account. Fines and interest will be posted to the proper controlling accounts for income. In the entire accounting scheme, the various series and the income and expenses in connection therewith should be kept entirely distinct from one another.

MISCELLANEOUS FINANCIAL INSTITUTIONS

There are in the United States a host of miscellaneous institutions, corporations, and individuals dealing in securities, that finance enterprises and deal in so-called "business chances." Some of these firms do a legitimate business and others are primarily swindlers. The latter class, naturally, rarely call in public accountants.

The public clamor that arose after the large security losses of recent years has brought about Federal legislation for a more stringent control of security dealers and corporations issuing securities.

The first step in this direction was the Federal Securities Act of 1933, which requires the registration of all new security issues with the Federal Trade Commission before they are offered to the public. A more detailed discussion of this Act and its significance will be found in the Chapter XL.

Many abuses in the investment field arose from the organization by large banks of wholly owned investment companies. The Banking Act of 1933 provided for the dissolution of these affiliated companies, to be made effective one year after June 16, 1933. Under this law no bank which is a member of the Federal Reserve System shall be affiliated with any corporation or association engaged in the flotation, underwriting, or public sale of securities.

The Securities Exchange Act of July 1, 1934, established a Security Exchange Commission with the object of promulgating rules and regulations regarding securities bought and sold on various stock exchanges. All the securities listed on the exchange must now be registered with the Commission. The regulations also provide for the certification of financial statements by independent auditors for all companies whose stock is listed and the submission of such statements at the close of each fiscal year.

The power of the Commission extends to the regulation of all members of the exchanges as well as over the counter transactions. In discussing the audit requirements of various types of financial institutions we must confine ourselves to the two principal ones: namely, investment companies and brokers.

INVESTMENT COMPANIES

Investment companies do not deal in securities as

agents for others. They represent combinations of capital for investment purposes, the theory being that where many individuals can merge their capital and have it distributed over a large variety of investments, the chances for loss are much diminished and the opportunities for gain considerably increased. Companies of this kind, therefore, buy securities for the income they yield and not as objects of sale. In auditing the accounts of such companies, the most important tasks are the verification of income and the counting and inspection of the securities.

Income from Securities on Hand. The income from securities on hand should be verified and tabulated from the securities themselves, and thereupon related to the cash book entry for dates of purchase. The income from investments sold during the year must be very carefully investigated, and should represent the accrued income from last interest or dividend date (or from the close of prior period) to date of sale. The cash book should show clearly the amount received in full, the profit over cost (if any), and the accrued interest. In the case of purchases, the cost of the investments and the accrued interest should be shown.

Investment at Cost. Very often investment companies buy up an entire bond issue at a discount. In that event the investment should be carried at cost and the profit shown when the bonds are retired or sold. If the bonds are retired serially, the difference between cost and retirement price should be shown as a profit as the bonds are retired. The following illustration will indicate the procedure necessary.

The bonds of the A Company, amounting to $100,000.00, are purchased at 96, and are to be retired by the A Company at the rate of $10,000.00 each year. The entries would be:

Company A Bonds..................	$96,000.00	
Cash		$96,000.00

To record the purchase.

Cash	$10,000.00	
Company A Bonds		$ 9,600.00
Profit on Sale of Bonds		400.00

To record retirement of $10,000.00 bonds of Company A and profit thereon due to discount at date of purchase.

In cases like the above, the auditor must make sure that the credit to the investment account for bonds retired is at cost. Otherwise the balance in the account would indicate that the remaining bonds were purchased at even less than the original price, and the profit on the bonds retired would not be evident.

Profits on the sale of investments are sometimes, and very wisely, put into a reserve account to provide against possible losses from other sales. However, it would probably be quite proper to transfer the balance in the Reserve Account at the end of each year to Profit and Loss, thus making each year stand on its own base. The income from the securities themselves, as adjusted by the Reserve Account, would without question be available for dividends. The income would reflect truly the net results from the year's activities.

Valuation of Investments on Balance Sheet. For published balance-sheet purposes the investments should be shown at cost or market, whichever is the lower, but it is not necessary to make any adjustments for differences on the books of the investment company. An investment company is not a dealer in securities, and market fluctuations do not regulate the sale of its securities. An investment company should, and as a rule does, sell only when the market is favorable (that is, above cost), or it may sell below cost if it is thereby offered an opportunity to buy at a discount other securities which will result in an appreciable eventual gain. In an audit of such accounts it will, therefore, suffice if the auditor in his own balance

sheet states the securities at cost or market, whichever is lower, or if he comments on these values in his report. The company's books need not be altered.

In accordance with the rule of the New York Stock Exchange, the valuation of the securities on the balance sheet should be at cost and summarized in reasonable detail. A footnote should be appended showing the aggregate cost of all securities, their market value, and the difference.

BUSINESS BROKERS

Business brokers' activities are many and varied. They buy and sell stores for others, they secure loans, sell bonds and stocks, arrange leases, promote industries, locate factories, and do almost any number of other things by which sellers and buyers are brought together. Their income is, therefore, as varied as their activities, and yet it is quite necessary that the income be accounted for in its various forms and that the expenses be distributed accordingly, as far as that may be possible, practicable, and feasible. The auditor may make his worth strongly felt by offering constructive criticisms with reference to the proper system of accounting whereby the income and expenses may be properly segregated and the profits from each activity clearly demonstrated.

It is advisable for the auditor to propose that the accounts be kept on an accrual basis. There is here no regularity in the cash income. Consequently accounts prepared on a cash basis offer no basis of comparison between periods. Moreover, unless accounts are kept with all customers, there is great danger of overlooking some of them. The auditor should inspect all accounts receivable very carefully, as many of them may be uncollectible. The real danger in a business of this kind is that of omission. Many arrangements are verbally made. The customers as a rule are bargain hunters and speculators moving from place to place, frequently without leaving an address, and the transactions are, therefore,

more or less unsatisfactory and intangible. There are real difficulties before the auditor, with reference to both the verification of income and the valuation of assets. If, therefore, he will confine himself to constructive advice, after satisfying himself as far as possible with regard to the items of income and expense and the balance sheet, his work will be well performed. Business brokers need accounting systems before they need audits, and if they will live up to the few following rules their profits will be more certain and determinable.

1. All cash received should be deposited intact in bank.
2. All bills and expenses should be paid by check or from a petty-cash fund operated on the imprest system.
3. All agreements should be reduced to written contract form, specifically setting forth the work to be performed, the remuneration therefor, and the mode of payment.
4. All accounts should be kept on an accrual basis and so segregated that the profits on each kind of activity may be readily determined.
5. Statements should be mailed to customers the first of each month and the accounts promptly collected when due.

Test Yourself on Essential Points

1. Outline the sources of income and the methods of their verification for a building and loan association.
2. How would you audit the income from securities owned by an investment company?
3. What principle should govern you in the valuation of securities on the balance sheet of an investment company?
4. What are business brokers and what conditions are there for the auditor especially to consider?

Chapter XXXI

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Insurance Companies

State regulation of insurance companies—Accounting records of a life insurance company—Verification of premiums—Testing insurance reserve—Past-due accounts—Vouching payments—Verification of investments—Analysis of surplus—Fire insurance companies—Premiums—Reinsurance reserve.

State Regulation. Insurance companies are under strict surveillance in practically all states of the Union. Moreover, the different states are quite severe on foreign companies who wish to do business within their bounds, and the taxes imposed upon such companies are often quite excessive. The insurance commissioners have much power and have not hesitated to use it. Consequently before auditing any insurance company, the auditor should become familiar with the state laws. These are much the same throughout the country with reference to general principles, but vary greatly in the details affecting operations. In most of the states the capital stock must be fully paid in before a company may start business, and its assets must have been inspected by the insurance commissioner. In other states, a minimum capital stock is required. After a company has once been organized, the states regulate the investment of the capital paid in by limiting it to bonds and first mortgages on property (otherwise unencumbered), ground rents, United States bonds, bonds of other states or political subdivisions of a state, and approved railroad bonds. The investment of surplus funds is also under state regulation. Although the provisions are more liberal, no loans may be made on personal security, the amount of single loans is limited to certain percentages of the capital stock, and there are other provisions regarding the total amount which may be invested in real estate mortgages. The companies are

usually prohibited from holding real estate except as it is necessary for the transaction of their business, or in case the property was obtained in satisfaction of debts, in which case it is to be sold at the first opportunity. The laws regulate the payment of dividends. Dividends may not be paid except out of net profits actually earned and must not be in excess of certain rates.

LIFE INSURANCE COMPANIES

It is very evident that an auditor must acquaint himself with the state laws regarding life insurance companies before beginning such an audit. The company must comply fully with these laws or its charter may be summarily revoked. The auditor must, therefore, know the laws fully in order that he may advise his client of any accounting procedure or acts contrary thereto.

Accounting Records. The books of a life insurance company are ordinarily kept on a cash basis. No entries are made to show unpaid past-due premiums. The policyholders' ledger merely indicates no payment, since there is no credit to such accounts. Death claims are settled in cash and no entry of the claim appears on the books until settlement is made. The principal books of an insurance company consist, therefore, of a number of cash books and the necessary ledgers. There is a general cash journal for recording the totals of receipts, the details of which are found in subsidiary records wherein the sources of income are designated and properly classified. These subsidiary records tabulate the receipts from agents, from the home office, and from foreign agencies.

The general cash journal contains the necessary columns for the general ledger controlling accounts. On the receipt side provision is made for premiums, interest, loans, mortgages, and real estate, and on the disbursement side, for agents' commissions and salaries, notes receivable, general expenses, traveling expenses, death claims, surrender values, mortgages, postage and

exchange, medical examination, and dividends to policyholders. An extra debit and credit column is provided for miscellaneous entries to be posted direct to the general ledger.

Premiums. Premiums on policies form the bulk of income. One of the first duties of the auditor is to verify this income. Under ideal conditions the total premiums credited in the general ledger should equal exactly the credits to the individual accounts in the policyholders' ledgers, but because of the almost limitless number of policyholders it is practically impossible to verify the income through the credits in these ledgers unless the company wishes to expend a great deal of money. Verification of income for a given period can, however, be accurately approximated by total comparisons between years. To the premiums of the prior year should be added all premiums on new business written during the year under review, and from this there should be deducted the effects on premiums from cancellation of policies, from paid-up policies, from death claims, from abatements, and from lapses.

The premiums received on new business may be verified through the examination of the policies issued, by making sure that all the numbers for the different classes of policies have been fully accounted for in the various subsidiary cash books. A very thorough test of premiums for the current year can be made in this manner, and since those companies employing public accountants generally have their books audited at least once each year, a very satisfactory check on premium income may be obtained.

Since duplicate copies of policyholders' accounts are kept in the actuarial department, where they are arranged according to classes or types of policies, a test comparison between the actuarial and the accounting department files should be made. The past-due accounts should be tested in this way.

Testing Insurance Reserve. The actuarial policyholders' files are segregated according to types of policies, and thereunder according to ages of policyholders at the time the policies were issued. This arrangement is necessary so that the proper reserves may be created for each type of policy. The calculation of these reserves requires a high degree of mathematical knowledge and training, and the average auditor is scarcely competent to verify the mathematical calculations forming the basis of the reserve construction. To make sure that these calculations are correct, he should call upon an actuary to assist him.

Past-Due Accounts. In order to ascertain whether all past-due accounts in the policyholders' ledgers are genuine, it may in some instances be advisable for the auditor to circularize these accounts in part or in whole, requesting that the policyholders mail their replies direct to his office.

Vouching Payments. All the disbursements for death claims should be carefully inspected, and properly approved vouchers must accompany the charges. Dividends to policyholders must be thoroughly tested, cash surrender payments vouched, and the disbursements for all expenses, salaries, and commissions carefully investigated. In the larger companies, where the internal check is extensive and efficient, fairly exhaustive tests of these various items will suffice.

The reports to the insurance commissioner should be compared with the company's own books, and the two should agree. The legal reserve must be properly constructed and must meet the legal requirements fully.

Verification of Investments. Probably the biggest task and an immensely important one confronting the auditor, is the verification of the insurance company's investments. These consist generally of the following groups:

1. State, municipal, railroad, and other bonds.
2. Bank and other stocks.
3. Mortgages and ground rents (first liens).
4. Premium notes secured by policies.
5. Policy loans.
6. Loans secured by bonds, stocks, etc.

These securities are listed in registers wherein the various classes are segregated. The totals in these registers must agree with the general ledger accounts, and the income from these securities may be computed from the registers. The registers show the name of the security, the date of purchase, the par value, the purchase price, the rate of interest (in the case of bonds, mortgages, and loans), and the due dates. These registers should be used in determining the income which is accounted for in the general ledger, thus providing an independent check against the cash records.

The securities themselves must be counted and carefully inspected by the auditor and his staff, or if deposited with the state insurance commissioner, that fact must be verified by correspondence. The counting of the securities on hand is a time-consuming task. Anywhere from 75 to 95 per cent of life insurance company assets are in the form of securities. However, just because of this fact and the strict requirements of the law regarding investments, the auditor must inspect and count the securities in full and, at the same time, assure himself that they are proper and according to legal requirements.

Tests of Liabilities. Among the liabilities the auditor should verify the following accounts by means either of exhaustive tests or of complete examinations wherever conditions permit or where the internal checks are weak:

1. Reserve as required by law (by far the largest item).
2. Additional policy reserve in excess of legal requirements (basis of construction).
3. Premiums paid in advance.
4. Policy claims awaiting proof.

5. Accumulations upon deferred distribution policies.
6. Miscellaneous current liabilities.

Analysis of Surplus. A very detailed analysis should be made of the Surplus Account and the payment of dividends. The states regard the Surplus Account of an insurance company as a provision for all contingencies not specifically provided for, rather than as available for dividends, and they have therefore placed a limit on the rate that may be paid.

FIRE INSURANCE COMPANIES

Nature of Premium. The audit of fire insurance company accounts presents no problems very different from those encountered in a life insurance company. The income, however, is treated somewhat differently, because of long-time premiums and because every premium received may become, at least in part, a liability. Premiums are therefore credited to income as earned and not when received.

The agents' reports contain the original entries of premiums, and a thorough test of these should be made by tracing these reports into the general books. Balances due from agents must be carefully examined, and accounts that are past due should be taken up with the proper official of the company.

All payments for losses must be *bona fide,* that is, must be properly authorized and paid to policyholders as evidenced by the premium or policyholders' ledger. All other vouchers for expenses, refunds, and abatements must be properly authorized. As in the case of life insurance companies, all investments in securities must be verified by actual count and inspection and the income therefrom proved.

Reinsurance Reserve. The liabilities of fire insurance companies are very similar to those of life insurance companies. The largest is the reinsurance reserve, and the basis of its construction is ordinarily fixed by state

law. This account must be verified by the auditor and he must satisfy himself that the law has been fully complied with.

The auditor should insist that ample reserves or liabilities be included in the accounts for accrued taxes and expenses, for losses in dispute, and for losses adjusted but unpaid.

Test Yourself on Essential Points

1. How are insurance companies affected by state regulation with reference to investments?

2. Outline the verification of premiums of a life insurance company.

3. What groups of investments are found by the auditor in a life insurance company?

4. Why is it important to analyze the Surplus Account of a life insurance company?

5 What is the reinsurance reserve in a fire insurance company?

6. A fire insurance company has gross assets, $26,000,000.00; reinsurance reserve, $14,000,000.00; gross liabilities, except capital, $17,000,000.00; surplus over capital and all liabilities, $7,000,000.00; capital, $2,000,000.00. What is the loss-paying ability of above company, i.e., surplus to policyholders? (From C. P. A. Examination.)

Chapter XXXII

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Publishers of books—Publishers of periodicals—Publishers of newspapers—Timber companies—Stumpage—Nature of dividend return—Proof of quantities of timber cut and sold—Depreciation—Audit of camp pay rolls.

PUBLISHERS

Publishers may be roughly classified according to the nature of their product as follows:

1. Publishers of books.
2. Publishers of periodicals.
3. Publishers of newspapers.

Publishers of Books. Publishers of books may do their own printing, binding, and selling, in which event the publisher is a manufacturer and the accounts will resemble those of an ordinary manufacturing business. The plant will be divided into departments and costs will be indicated on a departmental basis. The cost of sales will include the materials used, the labor employed, and the various departmental overhead expenses. All of these costs will finally be expressed in the finished inventory of books, the object of sale.

The auditor in this case must verify the inventories of materials, goods in process, and finished stock. He must assure himself as to the pay rolls and their distribution to the manufacturing departments, and he must make sure that all overhead expenses have been properly apportioned and included.

Verification of Income. In verifying the income based entirely on the sale of books, the proper procedure consists of reconciling the sales with production, that is, the Finished Inventory Account. The sales records should clearly indicate the titles sold, in quantities and values, and so afford the basis for monthly credits to Finished

Inventory Account and for royalties or commissions payable to authors or agents respectively.

Royalties to authors are based either on quantities sold or are figured on a percentage to sales prices. If the sales records clearly indicate the quantities sold, it will be an easy matter to verify the credits to the authors' accounts. The multiplication of the quantities by the rate per volume will at once furnish the amount to which an author is entitled during any given period. When royalties are based on sales prices, it will be necessary for the auditor to see that the percentages allowed the authors are computed upon sales, after giving effect to any adjustments. In any event the royalty accounts must be tied up with the royalty contracts, which the auditor should inspect.

As every author knows only too well, books do not always sell. The publisher can generally protect himself partly on a first edition by securing a proper guarantee from the author. Subsequent editions, however, are generally published at the risk of the publisher. Copyrights are often purchased outright. At any rate, in many cases the publisher has found that some publications do not sell and that the books on hand are worthless. Such books are not worth their cost and should be written off, or at least reduced to scrap value. To guard against conditions of this kind the publisher should carry a stock of titles based upon past sales as related to quantities on hand.

Consignments. Consignments of books to agents should be valued at cost and considered as part of the Finished Inventory Account. The reports of agents must be carefully scrutinized, however, and the publisher should insist on prompt remittances for books sold. Certificates verifying the inventories in their hands at the end of the period under review should also be requested from the agents.

Verification of Stock and Book Plates. The values of

finished inventory and of book plates on hand, having been determined through the production and the sales records, may be verified in many instances by actual count. Since editions are limited to certain numbers of volumes, such tests are easy. There may be some overrun or slight shortages, but even these can be readily proved by reference to the quantities of stock used in production. The values placed on book plates are somewhat more difficult to verify. The original values should be at cost. These should be written down in accordance with the demand for the publication and the probabilities of subsequent editions. The auditor should see that the metal value of scrapped plates is taken into account. This may be a large item.

Plates for novels written by authors of limited reputation should be written off as a cost of getting out the first edition. The plates of standard publications for which the demand is constant may be carried for a considerable period.

Copyrights should be valued not on the basis of their unexpired life but on the basis of the demand for the books. An inventory of plates and copyrights can never give a publisher working capital, and the sooner he can recover these investments by charging them off into costs, the more sound will be his business. In the balance sheet, all inventories should be carried at cost and reduced to market if the latter is lower.

Publishers of Periodicals. Publishers of magazines and periodicals do not carry a finished inventory stock which possesses any value (except as waste paper) after the dates of issue. As a result, production must be based closely on circulation. The only plates having any value are those held for long-time advertisers. It is very important that the auditor permit no valuation on old issues of magazines. He may make his work effective by preparing proper reports on the relation of production to circulation and the quantities of "left-overs." There

must be some left-overs, but only in sufficient quantities to meet a normal demand for old numbers, which may be established by an investigation of the publisher's experience.

Advertising. The largest revenue of magazine as well as of newspaper publishers comes from advertising. Advertising is directly related to circulation. As the circulation grows, the advertising revenue should grow. A sort of proportion should exist between the two, so that comparison of advertising revenue with circulation affords an excellent test of this relation as well as of the efficiency of the advertising department. The income from advertisements should be verified by multiplying the advertising spaces by the rates for each space. A test covering a number of issues should suffice. Newspaper advertising revenue must be tested, as it would be quite impossible for an auditor to verify the income fully. In both magazine and newspaper advertising, the contracts with the advertisers should be carefully examined and the rates charged on the books verified therefrom.

Circulation Revenue. Circulation revenue should be tied up with quantities printed after making the proper adjustments for copies returned, unsold, or spoiled. In fact, there is no other check. Enormous detail makes any other test impossible. However, all circulation accounts must be thoroughly tested as to their accuracy as well as to the mode of their construction. Circulation revenue from mail subscribers to magazines can be quite accurately checked by means of the total weight indicated on the mailing records or post office receipts. The latter, when divided by the weight of each copy, should give accurately the number of copies mailed.

The collection of subscription accounts or the handling of cash should be absolutely divorced from the circulation departments. If this rule is religiously observed, the circulation records themselves, if properly kept, should afford an excellent index to the circulation revenue. Sub-

scriptions paid for in advance should be kept entirely separate from cash circulation and should afford the basis for monthly entries against the prepaid subscription liability. Outstanding subscription or advertising accounts must be carefully examined and proper reserves constructed for any that appear doubtful. Journal credits to such accounts must bear the proper approval.

It is important in any publishing business that all costs of production and operation be fully included. An examination of the cost records is very essential. Many publishers and newspapers conduct regular job printing departments. The auditor must be careful to assure himself that the various departments are charged with their proper share of overhead expense and that all idle time of equipment be taken into consideration. The pay rolls and the inventory accounts deserve very special attention, and the stocks used should be reconciled as closely as possible with production and sales.

Timber Companies

Stumpage Account. The most important feature in the audit of timber-cutting companies is the so-called "Stumpage Account." This represents the capital of the organization. It is the purchase price of the standing timber, and since the income is derived from the sale of cut timber, the Stumpage Account is a deferred cost of sales. For purposes of properly costing the sales, the Stumpage Account must indicate the number of feet of standing timber acquired and the unit price of each kind of timber (the unit is one thousand feet). The quantity of timber included is an estimate based upon the cruise of the company's timber expert. As a rule the estimate is conservative. Consequently, the timber company generally finds considerable uncut timber left after the Stumpage Account has been entirely written off into cost of sales.

Elements of Sales. As the depletion of the timber rep-

resents the use of capital invested, the sales price of timber or logs represents in part the capital which must be returned to the stockholders. It is therefore advisable to split the sales into the following elements:

1. Capital returnable to investors.
2. Operating expenses.
3. Interest on borrowed money.
4. Net profit.

Nature of Dividend Return. When dividends are declared, the portion of capital returned thereby should be clearly indicated. In fact, each stockholder should be advised that his dividend consists of two parts, namely, a certain amount of capital and a certain amount of profit. The accounting procedure necessary to accomplish this is fairly simple.

Let us assume that timber licenses have been purchased which are valued at $700,000.00 and that $700,000.00 of capital stock has been issued. The original entries would be:

Cash	$700,000.00	
Capital Stock		$700,000.00
To record investment by shareholders.		
Stumpage Account	$700,000.00	
Cash		$700,000.00
To record purchase of timber licenses for 148,000,000 feet of timber at the following prices:		
128,000,000 ft. Pine ..... @ $5.00 per 1,000 ft., or		$640,000.00
20,000,000 ft. Hemlock . @ $3.00 per 1,000 ft., or		60,000.00
		$700,000.00

During the first year 16,000,000 feet of pine timber and 2,000,000 feet of hemlock were cut and sold. The entries would be:

Cost of Sales......................	$86,000.00	
To Stumpage Account..................		$86,000.00
To record cost of timber cut and sold during the year as follows:		

16,000,000 ft. Pine	@ $5.00 per M......	$80,000.00
2,000,000 ft. Hemlock	@ $3.00 per M......	6,000.00
		$86,000.00

The expenses of operation amounted to $150,000.00, interest on borrowed money to $3,000.00, and the timber was sold for $350,000.00. A condensed profit and loss statement would show the following:

Sales		$350,000.00
Deduct:		
Cost of Sales....................	$ 86,000.00	
Operating Costs	150,000.00	236,000.00
Operating Profit		$114,000.00
Deduct—Interest on Loans.....................		3,000.00
Surplus Net Profit...........................		$111,000.00

It is clearly evident that sales have returned not only the capital depleted ($86,000.00), but all expenses and interest, and have yielded a net profit of $111,000.00. The sales, therefore, represent the following increments expressed in percentages:

Capital Depletion	25.57%
Operating Costs	42.86%
Interest on Loans.............................	.86%
Net Profit	30.71%
Total	100.00%

The balance sheet at the end of the year, assuming that all expenses had been paid in cash and that the sales were on a cash basis, would be as follows:

ASSETS

Cash on Hand	$197,000.00
Stumpage Account	614,000.00
	$811 000.00

LIABILITIES

Capital Stock	$700,000.00
Surplus (Net Profit for Year)..................	111,000.00
	$811,000.00

From this balance sheet, we can readily see that the Stumpage Account (the basis of investment) has been reduced by $86,000.00; that it has been converted into cash; and, further, that the net profits are also represented by cash. The company may legitimately declare a dividend of $197,000.00, representing $86,000.00 capital returned and $111,000.00 net profits from operations. The entries would be:

Capital Investment Retired..........	$ 86,000.00	
Surplus	111,000.00	
Cash		$197,000.00

More conservative methods, of course, would be to return the capital depleted, charging the entire amount to surplus and retaining the remainder of the cash for working capital, or to declare a dividend out of the net profits only.

By analyzing the sales into the various increments of costs, profit, and depletion of capital, the company will constantly have before it the elements to be considered in price making and the ever-present element of actual capital exhaustion. The auditor must see that this depletion is fully covered in the cost of sales.

Proof of Quantities of Timber Cut and Sold. An excellent auxiliary proof of quantities of timber cut and sold is afforded by the official scaling of government officials in Canada. No timber lands are sold in Canada. All cutting privileges are in the form of licenses, and the government collects dues from a timber company on the basis of units of thousand feet cut. The reports of the government scalers should agree with the company's own records.

Cutting and Driving Expense. The largest expenses of timber cutting are for actual cutting and driving. Large camps are provided for the loggers, where they are housed and fed, so that the commissariat is an important factor. Proper inventories should be maintained for all food and

camp supplies, and no stores should be issued except against properly signed requisitions. The food costs should be very carefully investigated by the auditor and, if possible, reduced to a unit basis for each camp. A comparison between unit food costs at the different camps will readily reveal extravagance, mismanagement, or pilfering.

Depreciation of Equipment. Timber companies make heavy investments in road improvement, bunk houses, dams and river improvements, drives, and transportation equipment. The larger part of these will be worthless after all the timber has been cut. It is therefore necessary for a company to estimate in advance the number of years required to cut the timber and to depreciate its properties annually in the proper proportion. Or, better still, the depreciation may be figured on unit production, which will extinguish the property accounts as soon as the total original estimate of standing timber has been written off.

Audit of Camp Pay Rolls. As the loggers are all paid in cash, it is important that the pay rolls be inspected carefully. An independent check on pay rolls is afforded by the camp stewards' records of meals served. No audit of camp pay rolls is complete or adequate without comparing these records with the pay rolls.

Since a great deal of cash is handled by the logging superintendent and his assistants, the auditor should investigate whether these employes are sufficiently bonded. He must also insist on proper safeguards in the cash accounting, and should demand proper vouchers or receipts for all cash disbursements.

As the purchasing of supplies must, from the nature of things, be allocated to one individual or to a very few, the auditor must look carefully into the purchases and inventories. Any inventory shortages must be satisfactorily explained before being accepted as normal. They may represent the effect of short deliveries.

Test Yourself on Essential Points

1. How would you verify the income of a book publisher?

2. Is it advisable to capitalize the cost of plates and copyrights? If so, what method would you employ to amortize the cost?

3. State how you would verify the principal item of income of a publisher of magazines?

4. What is stumpage and how should it be valued on the balance sheet?

5. What are the parts that may make up a dividend return from a timber company?

Chapter XXXIII

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Important features to be considered in mine accounting—Royalties—Audit of branch accounts—Investigation of comparative costs of branch operations.

Mines

The audit of mining accounts is very similar to that of timber companies. In both instances the income is derived from the sale of the property forming the basis of the capital investment, and the material cost of sales represents the depleted capital increment of the selling price. The estimate of ore available is the entire Deferred Cost of Sales Account and it is therefore the practice to relate all costs to the mined ton basis.

Equipment, machinery, shafts, etc., should all be depreciated on a per ton mined basis, and will therefore be automatically written off (except the residual values) when the originally estimated quantities of ore have been produced and sold.

Wages are based on the per ton output of the miners, even though they may be paid according to per diem rates. The pay rolls must be carefully checked in order not only to verify their accuracy but to gain assurance that proper deductions have been made from the miners' pay checks for supplies sold them and for rents of houses furnished them by the company.

Royalties. Many coal mines are operated under leases, and royalties are based on tonnage or on the dimensions of the seams worked. The royalty agreements must be carefully examined by the auditor. He must satisfy himself that the royalties have been fully included in the costs and that proper liabilities have been set up therefor. The payment of royalties should also be investigated to see that payment is made in accordance with contract stipulations.

The sales of ore or coal should be carefully compared with the production records and inventories. The weights produced, less quantities used by the companies themselves, after the application of beginning-and-end inventories, should agree approximately with the sales as indicated by the shipping weights.

Some mining companies own and operate short railroad lines, stamping mills, and smelting plants. The auditor should examine all such auxiliary activities very carefully. He should generally make sure that all income is fully accounted for, that production is efficient, and that the proper distinction is observed between charges to capital and income accounts. He must also be sure that the total of dividends declared does not exceed the sum of net profits and capital depletion. In this latter connection he should ascertain the correctness of the original estimate of ore or coal available.

Branch Accounts

The audit of branch accounts is almost entirely dependent upon the systems in use and the relations existing between the branches and the parent office. It can readily be appreciated that where the branch carries stocks, makes its own sales and keeps the accounts receivable, finances itself out of its own collections, pays its salesmen and office help, nothing short of a complete audit of the branch, at the branch office, will be satisfactory. This is true even though the branch may send in monthly, or more frequently, detailed reports of inventories, sales, expenses, collections, deposits, and cash balances. The auditor must, under such circumstances, go to the branch office in order to verify the reports sent to the home office and the branch controlling account kept in the home office general ledger.

Wherever the branch keeps full accounts, as just indicated, the controlling account in the home office general ledger will represent the net investment in the branch office (namely, the branch cash, accounts receivable,

inventories, office furniture, and fixtures, etc., less the liabilities). In preparing the balance sheet of the home office the branch account must be analyzed so that the various kinds of assets and liabilities may be properly distributed among the balance sheet accounts. The branch balance should never be considered an account receivable.

In some instances, where branches collect no cash and carry no accounts, but serve merely as distributing and selling mediums, it may not be necessary for an auditor to visit the branch office. Such branches are generally allotted a fixed working or cash fund, and all payments therefrom must be accompanied by proper vouchers or receipts before the home office will replenish the fund. These branches, however, carry inventories, and if the auditor accepts the branch-managers' certificates therefor, he should so qualify his report. Branch inventories can, however, be checked quite accurately through the records of shipments from the factory or home warehouse and through the reports of branch sales. In fact, unless a reconciliation is obtainable on this basis, the auditor should refuse to accept the branch managers' certificates and should plainly report the discrepancies. Branch inventories should be valued at cost or market (whichever is lower) for balance-sheet purposes. Branch accounts receivable may very well be partly circularized. Many thefts of stock have been temporarily covered by fictitious accounts receivable.

In the audit of a large manufacturing concern, it was found that a certain branch manager opened up an account with himself under a fictitious name, billed much of the stock, and then reported that the account was uncollectible because the buyer had departed to "parts unknown." The culprit was exposed through the use of the city and telephone directories and by reference to the owner of the building whose address was given. These

sources clearly indicated that the account was fictitious and led to a full confession.

No audit of branch accounts is complete without an investigation of the comparative costs of branch operations with regard to branch sales. An auditor can clearly reveal thereby the relative efficiency of the various branch managers. In tabulating the costs and sales it would, of course, be unjust to compare the results obtained two thousand miles away with the operations of a branch located one hundred miles from the parent office. Comparison of this kind to be of any value must be made between branches operating under similar conditions. A branch in existence for ten years should be more successful than one just established. The following factors must be taken into consideration:

1. Distance from parent office and local conditions affecting sales (that is, the presence of other competition).
2. Years in the field.
3. Effect of freight rates.
4. Support given by the parent office through advertising, etc.
5. Kinds of product handled.
6. Extent of sales field and markets.
7. Populations served.
8. Effects of local conditions on expenses.
9. Experience of branch managers and their assistants.

Test Yourself on Essential Points

1. Outline your procedure in verifying the amount of depletion and the depreciation of machinery and equipment of a mine?

2. How would the auditor satisfy himself that the royalties of a mine have been fully included in the costs and that proper liabilities have been set up therefor?

3. Indicate what would guide you in examining and criticizing accounts receivable carried on the branch-office books of a business. What would you require before—

(a) Accepting the debts as good, or

(b) Writing off those you were told were bad?

(From American Institute Examination.)

4. Under what circumstances is it unnecessary for an auditor to visit the branch office, in the conduct of an audit at the home office?

Chapter XXXIV

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Internal audit and control of department stores—Summaries of sales—Verification of C.O.D. sales—Vouching expenses—Distribution of expense to departments—Cost accounts of contractors—Profit on uncompleted work—Verification of unfinished contracts—Sub-contractors—Auditing accounts of professional men.

Department Stores

The accounts of department stores are, as a rule, subjected to fairly efficient internal audit and control. The auditing department, however, primarily centers its activity on the sales, which are audited daily. The procedure for cash sales in the larger stores is as follows:

Summaries of Sales. The cash sales tickets, which have been assembled from the department cashiers, are first sorted according to the various cashiers' numbers. Thereupon each cashier's tickets are gone over and segregated according to the numbers of the sales clerks, and finally each sales clerk's tickets are arranged in numerical order. The sales are then summarized on cashier's sheets, each representing a department. On each of these sheets the sales clerks' numbers are spread across and each clerk's sales placed under his number. The sum of all the columns represent the total sales for the day for the particular department. The summary prepared from all the departmental sales sheets represents the total cash sales of the day and must agree with the cash turned over to the general cashier. In many stores, department cashiers have been eliminated and all cash goes through tubes direct to the general cashier's office. In this case, however, certain cashiers receive the money from certain departments and their receipts should agree with the summaries prepared from the records of the sales clerks.

The sales clerks' books form the basis of all sales auditing. Some stores use different books for each kind of

sale; that is, they employ one book for cash sales, one for charges sales, and another for C. O. D. sales. Summaries of the charge and C. O. D. sales are prepared in the same manner as heretofore described for cash sales, and must agree with the general book entries. Other stores use sales books wherein the sales slip itself indicates whether the goods were sold for cash, charged, or sent C. O. D. The C. O. D. sales must agree with the records in the C. O. D. department, where all C. O. D.'s are independently recorded as a check on the drivers.

Verification of C. O. D. Sales. A professional auditor cannot be expected to check the detail work done by the auditing department of a store, but he should compare the various summaries prepared by it with the entries in the general books. The C. O. D. Account should receive careful attention; very often drivers neglect to make collection or the package has been improperly labeled, with the result that open balances appear in the C. O. D. ledger. The auditor should advise immediate collection of these accounts, and if the items appear at all suspicious he should request a direct confirmation from the customer of the balance due. There is always a possibility that the driver may have pocketed the money.

Purchases. With regard to purchases, the auditor should examine closely the system of approving and verifying the bills, the plan used in the receiving department for guarding against shortages and defective goods, and the provisions made for freight deductions and discounts. The better-managed stores watch all these features very carefully and take discounts almost without exception. This is done so regularly that the purchase record in use is ordinarily provided with a discount column, sometimes called the "Anticipation Account."

Vouching Expenses. It is not practicable for an auditor to vouch the expenses of a department store in detail.

Certain accounts, however, should be examined with considerable care. Executive and clerical salaries, the wages of drivers and packing-department employes, insurance on stocks and fixtures, and depreciation accounts should be quite fully inspected. The pay rolls of the sales clerks should be compared with the store auditor's sales analysis, and any padding will at once be revealed by such a comparison. Drivers' pay rolls can be verified by comparing them with the delivery records. Any unusual variations in expenses between periods should be run down.

Distribution of General Expenses. No audit of department-store accounts is complete without an investigation of departmental profits and operations. All departmental accounts should be controlled through the general books, and each department must be burdened with its proportionate share of general expenses. The auditor should therefore verify the charges to the departments for delivery expense, building depreciation, insurance and taxes, and all other expenses which are prorated. The basis of apportionment should be proper. All building expenses should be prorated to the departments according to relative floor space occupied; advertising expense, according to proportionate spaces utilized in the advertising mediums; and delivery expenses, either on a basis of relative sales or according to the weights of articles delivered.

The accounts receivable should be aged, and proper reserves should exist for past-due accounts. Inventories must be examined as to quantities, prices, and values, and proper depreciation should be provided for apparently unsalable merchandise. Certificates as to quantities on hand should be requested from the department heads.

The various cash funds in the hands of the cashiers must be verified by actual count, and where redemption certificates or trading stamps are issued, the auditor must see that proper reserves are created to provide for the redemption thereof. This reserve need not be based on

the entire quantity of stamps outstanding for, as a rule, a great many stamps are never presented. The auditor should ascertain the percentage of redemption to issue, and he should recommend that the reserve be constructed in accordance therewith.

Contractors

The accounts of contractors are essentially cost accounts. Therefore, proper cost accounting is necessary not only for securing data of particular contracts but in order to make correct estimates. Whether a contractor is engaged in building, excavating, or engineering work, it is necessary to secure accurate costs of all operations. Lack of proper cost systems has put many contracting firms into bankruptcy. On the other hand, some contractors have worked out their costs to such a fine point that many of their operations have become standardized. It is the auditor's duty to analyze and inspect the costs with great care. They form the basis of the largest asset account on the contractor's balance sheet—namely, Work in Progress.

Contract Accounting. An effective accounting system for contractors provides for general ledger control over all contracts, the contracts themselves being specifically indicated in a contract ledger. A voucher register should be employed. This should provide columns for charges to General Stores and Supplies (for materials used generally and carried in stock), contract ledger, general expenses, and direct general ledger charges. The charges to General Stores and Supplies build up the inventories carried for general use, and include commodities like sand, gravel, cement, lime, lumber, etc. As these are needed for specific jobs or contracts, properly signed requisitions should be prepared for their withdrawal, the requisitions forming the basis for journal charges to the contracts.

Purchases for specific contracts and for all expenses

(pay rolls, etc.) chargeable direct to contracts, would be entered in the contract ledger column of the voucher register. The contract ledger itself should be an analysis ledger. Each contract shown therein will be charged with materials used (indicating quantities and values of each kind), labor employed (hours, nature of work, and cost), and expenses. The ledger should be confined to contracts in progress so that the general ledger controlling account for work in progress may readily be verified therefrom.

As soon as contracts have been completed, the following journal entry should be made:

Cost of Finished Contract	\$........	
Contract Ledger		\$........

It is conservative policy entirely to ignore profits on unfinished work. Therefore, the contracts receivable ledger may either be treated as a memorandum record or be carried on the general ledger as a controlling account with a contra credit for Reserve for Unfinished Contracts. If the contracts provide for partial payments as certain portions of the work are completed, those portions may then be billed as accounts receivable, the entry being:

Accounts Receivable	\$........	
Contracts Billed (Income)		\$........

A corresponding reduction must, however, be made to the contracts receivable ledger and Reserve for Unfinished Contracts Accounts as follows:

Reserve for Unfinished Contracts .	\$........	
Contracts Receivable Ledger		\$........

Profit on Uncompleted Contracts. It would, of course, be permissible at the end of a fiscal period to take some part of the profit on contracts partially billed. The entire profit may be taken on partial billing if the latter covers some definite part of construction work for which all costs have been fully included.

To assure himself that stores are properly accounted for, the auditor should inspect the system thoroughly.

He must likewise investigate the methods of wage payment and the pay rolls. The men should be paid by employes who have no connection with the preparation of the pay rolls. Where cost accounts of adequate form are used, the pay rolls may be readily proved through the daily time reports of the laborers, which are independent of the foremen's time books and relate to the distribution of employment on the various contracts. Where labor operations have been standardized, padding of pay rolls rarely occurs. Any padding would immediately be made evident through the increased labor cost.

Verification of Unfinished Contracts. Unfortunately, many contractors do not keep proper cost accounts. In such cases an auditor must verify the account for unfinished contracts from the certificates of engineers or architects; these indicate the quantity and value of the work completed from time to time, and form the basis for the partial payments on account. The auditor should secure such additional certificates as are necessary to prove the values of unfinished work not billed at the closing date of the period under review.

It is important that the auditor assure himself that all costs are included in the charges to the contract ledger, and especially that certain items often overlooked are fully considered. Such items are particularly the depreciation of machinery, equipment and tools, taxes and insurance on these, and general expenses growing directly out of the contractual relations.

Subcontractors. In large building contracts much of the work is performed by subcontractors engaged by the general contractor. The auditor must inspect the charges made by the subcontractors very carefully. In every instance the charges ought to bear the approval of the general contractor's superintendent and should indicate formally the acceptance of the work as satisfactory. It should be remembered that the general contractor bills

all the work completed by the subcontractor, and that this work must be as fully acceptable to the owner as the work completed by the general contractor himself. It is also important that the auditor investigate any liens or claims of the subcontractors against the general contractor, and that these be properly reserved for. The owner will demand that the completed structure be turned over to him free of all liens or claims from subcontractors or mechanics.

Professional Men

Professional men, with the exception of architects, rarely have their accounts audited. In fact, some of them keep no accounts at all or are content to limit themselves to duplicates of bills rendered for professional services. A public accountant may be of great service to these men by recommending simple and effective accounting systems.

Since the income of professional men is derived almost

ORIGINAL

Prescription No............

Patient ....

Address ....

Night Call............Day Call............Office............

Remarks:

Dr.............................

entirely from fees, it is important for the auditor to recommend a proper system for recording fees collectible.

Doctors. In the case of a doctor, it might be recommended that his prescription pad be so arranged that a carbon copy of each prescription written may be retained. The original and duplicate should bear the same number, and the sets should be consecutively numbered. The form on page 311 (in duplicate for each prescription) is suggested.

This original prescription should be perforated at the top so that it may readily be removed from the pad. The carbon copy thereof will remain in the pad or book and is, therefore, not to be perforated. This form will serve for night and day calls as well as for office visits. It should also be used when no prescription is written so that the pad will afford a complete record of all calls and office visits. The pad should be used at the end of each month for making out the bills to patients or for entry of charges in the patients' ledger. If the physician desires to keep a general ledger in addition, he should make a monthly journal entry charging patients' ledger and crediting Income from Night Calls, Day Calls, and Office Consultation, respectively.

The auditor should carefully investigate all old accounts with patients and suggest proper reserves for those apparently uncollectible. The credits to patients' accounts should be examined, and where no cash book is used these should be reconciled, if possible, with the physician's bank deposits. The status of accounts turned over to collection agencies should also be determined. It is advisable, of course, for a physician to have a complete set of simple, effective bookkeeping records, to deposit all of his receipts, and to pay his bills for taxicab service, drugs, etc., by check. Some doctors supply their patients with drugs and medicines. The auditor should then examine the purchase invoices and at least approximate the balances of stock on hand in order to state correctly the

income for the period covered by the audit. Automobiles, buggies, and horses used in practice should be adequately depreciated.

Lawyers. Lawyers should keep close watch over the time given by them to clients. In fact, most fees, if cases are not taken on a contingency basis, are based on per diem rates. A lawyer may very well keep his accounts in the same manner as a public accountant. Cases not taken on a flat fee or contingency basis should be charged according to the number of hours devoted to them.

It is customary for lawyers to handle many funds for their clients. These should always be kept distinct from a lawyer's personal funds. The auditor should strongly recommend such separation because the practice of treating clients' funds as part of his own may seriously affect the reputation of an attorney even though no injury may have resulted. Whenever attorneys act as trustees for estates, the accounting for estate income and expenses must be carefully investigated.

Architects. The accounts of architects and architectural firms vary according to the size of their businesses. Comparatively few of the smaller firms ever have their accounts audited. The larger firms, however, frequently call in public accountants and have more or less efficient and extensive systems of accounting. The verification of income from fees and commissions is the most important feature in the audit of these accounts. As fees are generally based on certain percentages to contracts, architects must keep a record of contracts and the payments made to the contractors. Fees are payable to the architect as moneys are paid to the contractor. There is no difficulty in determining the amounts due, because usually the architect himself must pass on the work before the contractor is paid.

Expenditures must be carefully examined, as many of these may be chargeable to clients. The Accounts Receiv-

able should reflect such expenditures in addition to the regular fee and commission charges.

Test Yourself on Essential Points

1. Outline your procedure to test satisfactorily the departmental sales of a department store.

2. In the verification of purchases what phases of system routine should the auditor consider?

3. What expense accounts should be examined with considerable care? Is it essential to verify the methods of prorating general expenses to departments?

4. In the audit of a contracting business what features are different from those of any other business?

5. Is it ever permissible to take a profit on uncompleted work?

6. State the special features, if any, in the audit of the accounts of architects, lawyers and doctors.

Chapter XXXV

AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Procedure for verifying accounts of oil mills—Verification of yield—Depreciation—Checking cost methods of textile mills—Special features in the audit of automobile manufacturers.

Oil Mills

One of the largest industrial activities in the South is the manufacture of cottonseed oil. Cotton seeds as picked are covered with a lint which is removed in the ginnery. The seed itself is composed of the hull and the kernel which contains the oil. The oil content represents about 20 per cent of the weight; that of the hull and kernel are about equal. Besides the crude oil, therefore, cottonseed mills produce a number of other products, namely, cottonseed meal, the linters, and the hulls.

From the latter are obtained various by-products, such as cottonseed bran, stearin, and soap stock. The lint is sold as short cotton. After all lint has been removed from the seeds, the hulls and kernels are separated by being put into a reel. The hulls are baled or sacked and sold as stock feed. The kernels, after being crushed and cooked, are deposited in cake form between press cloth and the oil extracted by presses. The cake remaining after the process of oil extraction has been completed, is cracked and ground into meal or is sold as meal cake, in which event it is merely broken into pieces. Relatively little cottonseed oil is refined in the South. Most of it is sold in the crude state to refining companies in the East.

Verification of Yield. In auditing the accounts of cottonseed oil mills, one of the most important tasks is the verification of the yield. The record of operations during previous years should be utilized in establishing some norm upon which to base proper judgment as to yield.

The weight of seeds purchased must be checked up against production. There is, of course, a normal loss in weight because of seeds that cannot be used, but this loss should run fairly uniform over long periods of time. Any unusual shrinkages should be fully ironed out, as they may be due to manipulation of the production or inventory records. The purchases of seeds should be carefully vouched and the invoices compared with the stock records. The stock records should further be tied up with the payment of freight bills and the weights of the latter compared with the weights entered in the inventory accounts.

The auditor should be able to prove the weights of production by using the following formula:

$$a + b - c = \text{production.}$$

a = the sales (by weight) of linters, hulls, meal, and oil.
b = the weight of linters, hulls, meal, and oil on hand at the end of the period.
c = the weight of linters, hulls, meal, and oil on hand at the beginning of the period.

Seeds which cannot be used for oil production should be accounted for through Miscellaneous Sales or by adjustments to Inventory Account. An auditor's report should clearly indicate the sales as well as the seeds used, by weight. It should show the material cost per ton of sale as well as the per ton cost of operating. From such statements the proportional yields of oil, meal, hulls, and lint out of a ton of seeds will be readily revealed. This should be of value for comparison with operating records of prior years and will afford a clue to other than normal differences between yields.

Depreciation. Cottonseed oil mills run double time or the full twenty-four hours for six months or less each year. Depreciation is, therefore, a very heavy expense and must be more than double the normal rates for an average ten-hour-day run. In six months, the mills run a greater number of hours than other manufacturing

concerns do in a year. Where the normal running time of the latter is 3,000 hours per year, the oil mill will operate 3,600 hours in six months. The annual depreciation charges should be even greater than the percentage of excess, because machines in continuous service for twenty-four hours a day during a period of six months depreciate more rapidly than the above relation indicates. There are no idle periods for effective repairs, and the chances for sudden and disastrous breakdowns are greatly increased. Depreciation charges must, therefore, be very adequate. Moreover all other costs for the entire year must be absorbed into the operating period, for unless they are fully included during the period, the stated profits from operations may vanish entirely.

The idle season for cottonseed oil mills is utilized for repairing the machinery and rehabilitating the plant. Rehabilitation expenditures should be charged against the depreciation reserve, and the repairs should be set up as a deferred charge to be written off during the operations of the following season. In this way each operating period will be burdened with the repairs which were made to put the plant in effective working condition. The auditor must exercise great care in analyzing these expenditures in order to assure himself that the proper principles of accounting with reference to repairs and replacements have been observed.

Textile Mills

In the same degree that cottonseed oil mills are localized in the South, the textile mills are largely confined to the New England States. These enterprises form the bulk of the industrial activity of that section. Much good work has already been done by public accountants in standardizing the cost and general accounting systems of the textile companies, so that the public accountant called in to audit their accounts will usually find well-developed and properly controlled accounts.

Checking Cost Methods. As in the case of oil mills the important feature of the accounting here is the cost system. The auditor must, therefore, emphasize the examination of raw-materials inventory accounts, the production as related to purchases and manufacturing costs, and the sales as based on production. The inventories of goods in process and of finished goods must be carefully inspected to ascertain whether the basis of valuation is correct. It is needless to say that the values must not exceed cost. But, on the contrary, they should incorporate fully all legitimate elements of production costs. The methods of applying factory overhead or burden should be examined thoroughly. As so much of the work in textile plants is performed by automatic machines with processes very clearly separated by departments, the proper proration of factory overhead is quite easily determinable.

Automobile Manufacturers

The automobile industry has come to be one of the greatest in the United States. Apparently because of the installation of effective cost systems and through scientific management and mergers, the failures in this industry are now very few. The industry is an outstanding example of the economies of large-scale production and of efficiency in both production and accounting control. The auditor's task is lightened by the well-organized accounting control.

Cash Deposits. Orders for cars from local agents specify a given quantity and must be accompanied by cash deposits representing a percentage of the entire order. These deposits must be considered as liabilities until the orders have been filled. As the cars are shipped and billed, the Deposit Account should be reduced proportionately and transferred to the Sales Account. The balance of the sales price is remitted by the dealers usually through an authorized finance company, which extends credit to the dealers.

Insurance on Finished Cars. A large item of expense, which should be carefully investigated, is the insurance carried on finished cars on hand, in transit, or with selling branches. Cars are sold to agents at flat prices, the prices to different agents varying sometimes according to the quantities sold under each contract. In addition, bonuses are paid some agents who sell cars in excess of a certain quota. Not only must the auditor examine the agents' contracts very carefully in order to verify the sales at the contract prices, but he must with equal care assure himself that all bonus calculations are proper.

Royalties. Another large expense is for royalties. Many of the devices used on cars are patented, and royalties must be paid to the patent holders. As these devices are used on practically all cars and as the cars are numbered consecutively, it is a fairly simple task to verify the Royalty Accounts.

The inventories of accessories can be readily verified in the same way; the quantities on hand should be proved by ascertaining the quantities used on the cars manufactured. To the inventory of accessories on hand should be added the accessories purchased, and from the sum of these should be deducted the accessories used. The latter quantities may be determined by multiplying the accessories going with each car by the number of cars manufactured. If this procedure does not prove the quantities on hand, then some accessories have doubtless been sold independently. The Accessory Sales Account should explain any discrepancy.

Some truck and trailer manufacturers merely assemble parts. They buy all their parts and even their motors from other manufacturers. The purchase invoices for these parts must be examined quite thoroughly and must be properly included in the inventory accounts. The auditor should also ascertain whether or not the officers of the company are interested financially in any of the companies from whom parts are purchased.

Not many years ago, during the course of an audit of a large and well-known automobile company, it was discovered that the president of the company was heavily interested in a number of companies from whom many of the largest and most valuable parts were being purchased and at a price considerably above the market. The object here was, apparently, because of a profit-sharing arrangement with another company, to divert the profits of the automobile company to the other companies in which the president was a shareholder. It is the auditor's duty to expose practices of this kind for the benefit of the entire body of stockholders, even though the president and his followers may be in control.

Advertising. The Advertising Account is a large one and should be checked to a certain degree from the advertisements themselves or, if conducted through agencies, by means of the contracts. Extensive publicity campaigns are generally in progress among automobile manufacturers.

Since new models are sold almost every year, the Deferred Advertising Expense Account should be very small. It should be limited largely to unexpired advertising contracts. There is nothing peculiar about the advertisements of automobile manufacturers and most of them are very similar. The future results of any specific insertion are therefore somewhat doubtful, and to defer the expense thereof is an act open to just criticism.

The Deposit Accounts to the credit of dealers, just referred to, should be verified by correspondence. It may be possible that interest is to be allowed on these accounts and, if so, the auditor must set up the accrued portions thereof. The Deposit Accounts should not be included with the accounts payable because they are deferred income accounts. However, until they are transferred to Income, they should be considered as liabilities. Very often the dealers or agents will charge the company

for allowances made to their customers. In securing the dealers' confirmations with reference to the Deposit Accounts the auditor will doubtless find that they have claims which the automobile manufacturers may or may not have allowed. The claims of agents not recognized in the manufacturer's books should be thoroughly investigated in connection with the contracts in force. The claims of agents for customers may in some instances have to be verified by corresponding directly with the customers. Otherwise an unscrupulous dealer may very easily ask for allowances which he never granted his customers or he may call for free repair parts which he never furnished them.

The inventoried value of repair parts must be investigated with great care. The manufacturer must, of course, keep certain quantities of repair parts on hand. Many of these will be for cars sold in past years, and it is a difficult task indeed to anticipate correctly the quantities that will be required. Some manufacturers base the manufacture of repair parts on past experiences with other models of cars, but never make more than a limited number at a time. They guard against complete exhaustion by carrying a low minimum and by making a reduction in each new production order. The reduction in the order is based upon the gradual decline in demand for the parts. In almost every factory, however, the auditor will find a considerable quantity of repair parts that will probably never be called for. These inventories should be reduced to scrap value.

Test Yourself on Essential Points

1. In order to make a satisfactory test of the yield in an oil mill, what factor should the auditor consider so that he may arrive at the proper conclusion? Give a formula to prove the weights.

2. How would you attempt to verify the adequacy of the reserve for depreciation of oil mill plant property, taking into consideration the idle season?

3. What features of the operations of a textile mill should receive special attention by the auditor?

4. How would you verify the deposit accounts of an automobile manufacturer?

5. (a) What is meant by "fixed" and "variable" overhead costs in cost accounting for a manufacturer?

(b) Give examples of each.

(c) How will increases and decreases in production affect the varible and fixed overhead in the cost per unit?

(d) Illustrate by example your answer to (c).

(e) Why should any distinction between fixed and variable costs be recognized?

(From American Institute Examination)

Chapter XXXVI

AUDIT OF MUNICIPAL ACCOUNTS

Importance of municipal audits—Proprietary and fund accounts—City budget—Basis for tax rate—Appropriation ledger account—Encumbrances—Fund ledger—Income from taxation—Special assessments—Sundry revenues—Depreciation—Need for accounting system.

Importance of Municipal Audits. In undertaking a municipal engagement, the auditor assumes a responsibility to the public to whom his report will be rendered. His report is, therefore, of importance to the public as every taxpayer may be considered as an investor in his government. The term "municipality," however, is not limited to cities, states, and other political units. It includes, also, enterprises such as universities and schools operated for general welfare. In any event, however, the auditor in accepting a municipal engagement commits himself to a public trust.

This trust centers around the duty of accounting for public funds. The emphasis is upon accountability rather than upon the verification of income-producing operations, as in the case of the audit of a commercial concern. His principal objectives are to see that all funds received or due the municipality are properly accounted for in total, and also that certain funds are used only for certain purposes. This involves the audit of budgetary or funding transactions in addition to the results of financial transactions. Funding transactions include the control of appropriations and of commitments which have not become actual liabilities.

Proprietary and Fund Accounts. The accounts of cities fall into two general groups, namely, the proprietary accounts and the fund accounts. The proprietary accounts, as indicated by the name, deal with the properties owned and their operation. The fund accounts are con-

cerned with the legal limitations placed upon the city officials with reference to expenditures.

The expenses of a city are in reality predetermined. Each year the various department heads prepare estimates of the funds they will require for the next year. These estimates are passed upon by the finance committee of the city council. The finance committee then recommends to the city council that the various amounts required be allotted to the departments and bureaus. The sum of all the allotments, or appropriations, is the city budget, and no department may spend in excess of its appropriation unless an additional appropriation is obtained from the city council.

Revenues and Appropriations. After an estimate has been made of the revenues to be derived from the municipal enterprises and from franchises, fees, fines, rents, licenses, etc., the total is deducted from the sum of the appropriations to the departments. The difference will represent the amount which must be raised by general taxation. This latter amount, divided by the total assessed value of real and personal property furnishes the tax rate. The opening entries for a year must indicate the sources of the estimated revenue and the allotment thereof to the various departments. They would be expressed in somewhat the following manner:

1. Estimated Income:		
Municipal Enterprises	$........	
Taxation	....	
Franchise	....	
Licenses	....	
Miscellaneous Sources	....	
Income Available for Appropriations . .		$........
To record estimated income for the year available for appropriations.		
2. Income Available for Appropriations .	$........	
Appropriation Ledger		$........
To record appropriations made by the city council to the departments as follows:		

Police Department . .	$........
Fire Department . .	....
Department of streets, etc., etc.	....
Total Appropriations .	$........

The credit to Appropriation Ledger Account is posted in total to a general ledger account bearing that name, which thereupon becomes the controlling account for the sum of the various departmental appropriations which are entered individually in a subsidiary appropriation ledger. The warrant register should contain a column headed "Appropriation Ledger," in which all disbursements chargeable to the appropriation accounts must be entered. The individual entries in this column will be charged to the proper appropriation account in the subsidiary ledger, and the total of the column will be debited at the end of each month to the appropriation ledger controlling account in the general ledger.

Encumbrances. There are, however, other charges against the appropriation accounts. These are the so-called "encumbrances" or unpaid liabilities. They take the form of contracts, or open, unfilled purchase orders. It is therefore necessary to have a contract ledger and a purchase ledger, in which will be entered all contracts made by the various departments and the orders placed by them respectively. The contract and the open purchase order ledgers may either be made an integral part of the accounting system or be treated as memorandum records. In either event, the encumbrances recorded therein must be deducted from the balances in the appropriation accounts to show the free balance available for use for each department or division.

Contracts are specific in their amounts, and the contract ledger should therefore be actually tied up with the general books. As the departments enter into contracts, their appropriation accounts should be charged and a Contract Reserve Account credited. The latter account

will be cleared from the books by the charges from vouchers issued in payment of contracts. When a purchase order is placed, it is not always possible to estimate the final cost thereof. It is then sometimes feasible to carry the purchase order ledger as a memorandum record. In the latter event, the appropriation accounts would be charged directly with vouchers in payment of purchase orders and at the end of each month the unfilled orders would be considered as additional encumbrances so that the free balance could be properly shown.

Contract Ledger. The contract ledger, arranged by departments, should indicate the name of the contractor, the number of the contract, the nature of the work performed or the materials furnished, the date, the payments made, and the voucher numbers for the payments. The vouchers are charges not to the departments, but to the Contract Reserve Account, the departments having already been charged with the full contract originally and the reserve credited.

The purchase order ledger, also arranged by departments, must indicate the order number, the date, the date promised, the date filled, the estimated amount (forming the basis of the encumbrance), the date paid, the voucher number, and the amount paid. The difference between the estimate and the amount-paid columns will at any day represent the current encumbrance against the departmental appropriations for unfilled orders.

Fund Ledger. The fund ledger is of equal importance with the appropriation ledger, and the two can be very conveniently tied up with each other. All receipts are chargeable to the treasurer and should be credited to the proper fund account. The disbursements for certain departments must come out of specified funds. In fact, some funds are limited very specifically for the use of certain departments. Since all funds are charged to the treasurer, the disbursements must be credited to him

under each fund account. It is therefore advisable that in each fund account the following information be afforded—date of payment, voucher number, appropriation account charged, and amount. In view of the fact that the appropriation ledger indicates the vouchers charged against the appropriation accounts, the inclusion of the appropriation account name in the fund ledger will afford an excellent means for cross checking between the two ledgers. To facilitate this even further, it is recommended that the appropriation ledger contain (besides the date, voucher number, name of payee, and amount of the voucher) a column wherein the name of the fund account may be entered. The cross reference would then be absolutely complete.

It is impossible to discuss fully, in a book of this kind, the detailed accounting procedure of municipalities. Stress must be laid here not on accounting but on auditing procedure.

Income from Taxation. The methods of accounting for income from general taxation must receive very close scrutiny. The taxes collected should agree with the amounts assessed in the tax roll, and any alterations in the assessments must be substantiated by proper authorizations. The taxes uncollected must agree with the general ledger-controlling account for taxes receivable, this latter account originally representing the entire tax roll.[1] Taxes in arrears must be fully noted, as these are liens against the property. When paid, the proper amount of penalty or interest collected therewith must be fully accounted for in the books. In some cities, after a specified time the tax liens are sold or the property itself is impounded. All such income must be ascertained and

[1]The Taxes Receivable Account is placed on the books after the tax roll has been completed. At that time the estimated Tax Revenue Account is credited and the account for taxes receivable is charged. Assessments collected are, of course, credited to the Taxes Receivable Account.

proved, and the auditor must satisfy himself that proper settlement has been made with the property owner.

Special Assessments. Special assessments for local improvements are very often collected in installments. The installments include the payment of principal, interest, and sometimes of penalties. The auditor must see that the various increments included in the payments are properly accounted for. Here the entire procedure in connection with the local improvements should be investigated. The city generally issues bonds to defray the expenditures for the improvement, and retires the bonds as the assessments are paid by the public. The interest on these bonds should be fully recovered through the interest charged on the deferred installment payments. The provisions governing the retirement of the bonds should be complied with fully and the funds derived from the collection of assessments should be properly reserved to pay the bonds as they fall due.

Sundry Revenues. The income from franchises, rents, licenses, and other sources should be verified through an inspection of the franchises, the rental agreements, and the subsidiary records detailing the location of resorts, stores, and other license-paying units. Some franchises provide that the city receive a percentage of the net profits of the franchise holder, the city in that event being granted permission to audit the franchise holder's books. This audit may be conducted by the city officials themselves or by a professional accountant. In the latter event, the accounts of the franchise holder must be very closely analyzed, especially with reference to charges against income.

As the department heads are very careful that their appropriations fully meet their annual requirements, the approval of vouchers charged to the departments receives detailed attention. All vouchers must be approved by the department heads and must be accompanied by evi-

dences covering the receipt of goods or of services rendered. The auditor must, however, give special attention to any unusual expenditures. He must make sure that the disbursements have been made from the proper funds and that the right departments have been charged therewith. He must also analyze the vouchers from the standpoint of account classification, so as to be certain that the proper distinction has been observed between charges to capital and income accounts. This precaution is necessary in order to verify the additions that have been made during a fiscal period to the city's asset accounts. Tests should be made with reference to prices paid by the city for standard commodities, that there may be no abuses or graft in the buying. In the best-governed cities all purchasing is in the hands of a single purchasing department. The advantages of such an arrangement are obvious. Larger quantities can be bought at reduced prices, inventories may be properly controlled, and the dangers of graft are reduced to a minimum. It is much easier to inspect and to control a centralized activity.

Where cities own public-service facilities, such as water, gas, and electric-lighting plants, and street railways, it is important that the proper accounting principles be applied in connection with their operation. Unfortunately this is not always done and one element of cost is generally omitted—namely, depreciation. Though it would be improper to set up a reserve for depreciation as in the case of private corporations, provision therefor should be made by annual appropriations for the estimated cost of replacement. The funds thus obtained could be invested in such a way that the combined principal and interest accumulations would suffice for the eventual restoration of the property. In this way each year would be burdened with its just share of depreciation, the bonds originally issued for the properties would be perpetually secured, and no single generation would be excessively burdened with an expense which prior

generations had refused to consider. The bonds issued when the properties were originally acquired would not have to be retired, but could easily be refunded because of the unchanged character of the security. The interest on the bonds should, of course, be defrayed from the net income of the various municipal enterprises and not from taxation.

The American Institute of Accountants, in co-operation with the National Committee on Municipal Accounting, has done much to promote sound accounting methods in municipalities.

Below is a tabulation of specific objectives which, in our opinion, may well be sought in bringing about further improvement in municipal accounts.

1. In order to gain the proper cohesion and co-operation between departments and the controlling elements in city organizations, there must be a thorough study of functional relations. From such study, organization charts should be prepared.
2. All functions of similar character should be centralized and put under effective control. Thus, the purchasing activity, now so frequently allocated to all departments, should be put under central control. This would provide for enormous economies and proper control of stores.
3. From the expenditures for past years a uniform classification of expenditures adaptable to all departments should be introduced. This classification should be such that a clear distinction will be observed between expenditures for capital additions and for operating expenses. The additions to property accounts should of course, be controlled through the proper records related to the department appropriation accounts.
4. All city property should be inventoried and carried in properly grouped accounts on the balance sheet. By a proper relation between the capital expenditures chargeable to department appropriations, these capital accounts could be kept right up to date. All obligations and liabilities should be fully expressed in the accounts and a proper showing should be made of corresponding requirements and reserves.

5. All accounting should be under the control of one department.
6. The accounts should be kept on an income and expense rather than on a cash basis and should be fully controlled by a general ledger.
7. Unit costs and job costs should be established and standardized wherever possible.
8. Budgets should be functional as well as departmental and divisional.
9. Uniform monthly reports of all operations should be prepared for the city officials and the public.
10. The operating activities should not only be reflected in operating statements but should become equally evident through the changes in the balance sheet.

Test Yourself on Essential Points

1. Name and describe the principal groups in which the financial transactions of a municipality are summarized in its annual statement. (From American Institute Examination.)

2. Give three differences between the accounts of a municipality and the accounts of a commercial business. (From C. P. A. Examination.)

3. A village makes the following appropriations for the year 19— and a tax is levied therefor:

Bond Redemption	$2,000.00
Bond Interest	800.00
Salaries	2,700.00
Contingent Expenses	500.00
Police	1,600.00
Poor	750.00
Care of Streets	1,200.00
Lighting	950.00
Education	3,000.00
	$13,500.00

How should the village books be opened for the year in accordance therewith? How should collection of taxes be recorded? How should disbursements against appropriations be recorded? (From C. P. A. Examination.)

5. Outline the principal points to be considered in the development of an efficient accounting system for a municipality.

Chapter XXXVII

MISCELLANEOUS AUDITS

Trustees' and executors' accounts—Educational institutions—Investments of an educational institution.

In the previous chapters, the procedure necessary for the effective audit of some well-known forms of business organization has been recommended. There are, however, special audits having certain peculiarities which must be covered in a work of this kind. It will be impossible to discuss all of these and we shall therefore confine ourselves to the following:

1. Trustees' and executors' accounts.
2. The accounts of educational institutions.
3. Club accounts.
4. The accounts of charitable institutions.
5. Hotel accounts.
6. The accounts of theaters.

Trustees' and Executors' Accounts

State Regulation of Estates. The accounting for estates is regulated by state law and the legal requirements are becoming more rigid. The result has been that public accountants are being asked more frequently to give advice on estate accounting and to examine the accounts of administrators and executors.

Administrators and executors in the technical sense are court officials, who have been chosen to close up the affairs of a decedent's personal estate. Their functions consist of the collection or conversion into cash of the personal property of the deceased, of the payment of his debts, and of the distribution of the remaining personal property according to either the provisions of intestate law or the will of the testator. The administrator is appointed by the court when there is no will. The executor is designated by the testator in the will and is approved by the court. The functions of the two are

identical. They both differ from a trustee, the latter being one who is given temporary or sometimes extended title to specific property which he must dispose of or hold (subject to the provisions of a trust indenture) for the benefit of another person designated in the law as the "cestui."

The auditor's first duty is to read the will (if there be one), to determine whether the will has been properly probated and whether the executor named therein has received the court's approbation and has filed a satisfactory bond if the state laws demand it. Wherever the state laws demand that the executor file an inventory of the personal property of the decedent, the auditor should obtain a copy of the inventory thus filed and compare it with the opening entries in the executor's accounts. The inventory filed with the court and the executor's books should specify the personal property in detail, and the values thereof should be based on an impartial appraisal. The debts should not be filed unless this is required by law, because the gross estate must not be diminished for the benefit of any particular creditors.

After having satisfied himself that all preliminaries required by law were complied with, the auditor must next determine, if possible, whether the entire personal estate is in possession of the executor. There may be assets in the hands of persons who have refused delivery thereof to the executor, and proper legal steps should appear to have been taken by the executor to gain possession of such assets. All cash of the decedent should be deposited in the bank in the name of the estate, and all other personal property must be preserved with the same degree of care as the executor gives to his own property.

The executor's duty is not to retain the personal property but to convert it into cash and to distribute the cash among the beneficiaries named in the will. The investigation of the conversion of the personal estate into cash or of its distribution in other forms, as provided by the

will, is of very great importance; the auditor must be sure that the realization from the sale of assets is complete, that no improper deductions have been made therefrom, and that property not converted is distributed on the proper basis.

The administrator has a preferred claim covering his own and the funeral expenses. These, as a rule, must be paid before the claims of creditors. All debts against the decedent at the time of his death come next, and must be paid in the order prescribed by law. If not so paid and if no further funds are available, the executor may become personally liable. The order of payment is generally as follows: first, debts due the national government; second, state and local taxes; third, claims reduced to judgment; and fourth, the claims of regular creditors.

The auditor may be engaged by either the estate or the executor. In either event his efforts should protect both, through a careful consideration of the assets to be accounted for, the claims to be liquidated, the expenses to be paid, and the distribution of the residuum to the legatees, or heirs. Legacies must not be paid until the time specified by the court or until there is complete assurance that all creditors have been fully satisfied. After the executor has performed all these various duties, he must present his final accounting to the court. As it is generally the final accounting which is submitted for audit, it is of the very greatest importance that the audit be quite detailed and thorough. The final accounting is the basis of the court's order for the distribution of the estate.

An estate in trust generally consists of real or other property conveyed to an individual or organization as trustee. The trustee must preserve the property intact and must dispose of its income as provided by the trust agreement. The most important task of the auditor is, therefore, to ascertain that the principal remains untouched, that the distinction between principal and

income be studiously observed in all the trustee's activities, and that this distribution be properly recorded in the books. This is not always so simple. For example, a dividend received after the testator's death may be either principal or income. If declared before the date of death, it is principal; if after that date, it is income, the date of the dividend declaration and not its receipt being the governing factor.

Not only must all the assets held by the trustee be fully examined and proved (by actual count in the case of securities), but the income therefrom must be fully accounted for in detail. All expenditures must be accompanied by proper vouchers. The commissions taken by the trustee on net increases of investments (through reinvestments) and for distributing and accounting for the income, must be proper and in accordance with the law or the will as the case may be.

The nature of trust investments is fixed by law. As a rule they are limited to real estate mortgages, approved first-mortgage railroad bonds, and government securities. Losses ensuing from illegal investments must be borne by the trustee. The auditor must also ascertain that the trust funds are kept separate and distinct from the trustee's personal funds and that they are separately accounted for.

During the administration of a trust the following are regarded as reducing principal:

1. Premiums on securities purchased. (These should be amortized during the life of the securities and a portion of the interest received on the securities set aside to offset the annual premium amortization).
2. Losses ensuing from the liquidation of approved investments.
3. Losses of property which are beyond human control or which cannot be compensated for by insurance.
4. Shrinkages in values due to obsolescence which could not be foreseen.

Accretions to principal are occasioned by the following factors:

1. Increases in the values of real property due to the passing of time.
2. Profits on the sale of investments.
3. Discounts on securities purchased.

Accounts of Educational Institutions

Colleges and Universities. Universities either are privately endowed or are state institutions. The accounts need not vary, however, except with reference to the classification of income. Both derive funds from matriculation, tuition and laboratory fees, and in some cases from dormitories and sales of various products; but these classes of income form a relatively small portion of the entire income of most universities and colleges. The great bulk of income is derived either from funds provided by state taxation or national government support in the case of state universities, or from interest on investments in the case of privately endowed universities.

We have already described very fully the accounting or auditing procedure necessary for appropriation accounts in connection with municipalities; the appropriation accounts of universities are constructed in exactly the same way. As certain disbursements for departments must come from specific funds, universities also keep fund accounts. The withdrawals from the various funds (through voucher) must agree at all times with the voucher charges to the departmental appropriation accounts. Universities, like municipalities, keep account of their contracts and open market orders, both being regarded as encumbrances against the departmental appropriations.

Vouching of Disbursements. In auditing university accounts, the largest, and to a certain degree, the most important task is the vouching of the disbursements; the vouchers must not only be withdrawals from the proper

funds and charges to the proper department appropriations, but they must be charged to the proper account classification under each appropriation account. The diversity of the accounts of a large university is indicated in the following outline of the balance sheet and revenue and expense accounts of a leading university in the Middle West.

ASSETS

I. Current Fund Assets.
- A. General Funds.
  - Cash Held by University Treasurer.
    - University—Liquid Balance.
    - University—Impounded Balance.
    - Agricultural Experiment Station.
    - Agricultural Extension.
    - Engineering Experiment Station.
    - Engineering Extension.
- B. Restricted Funds.
  - Cash Held by University Treasurer.
    - University.
    - Agricultural Experiment Station.
    - Agricultural Extension.
    - Engineering Experiment Station.
    - Auxiliary Enterprises.
- C. Inventories.
- D. Revolving and Change Funds.
- E. Breakage Funds.
- F. Receivables.

II. Loan Fund Assets.
  - Cash Held by University Treasurer.
  - Notes Receivable.

III. Endowment and Trust Fund Assets.
- A. Loan to State.
- B. Consolidated Trusts and Endowments.
  - Cash Held by University Treasurer.
    - Consolidated Investment Fund.
  - Securities.
  - Coupons Held for Collection.
- C. Consolidated Sinking Funds.
- D. Special Trusts and Endowments.

E. Women's Residence Hall.
F. Trusts and Endowments.
IV. Plant Fund Assets.
A. Cash Held by University Treasurer.
B. Invested in Plant.
V. Agency Funds.
VI. Non-Educational Funds.

LIABILITIES

I. Current Liabilities and Funds.
A. General Funds.
Reserve for Outstanding Orders.
University.
Agricultural Experiment Station.
Agricultural Extension.
Engineering Experiment Station.
Engineering Extension.
Available for Current Use.
University.
Agricultural Experiment Station.
Agricultural Extension.
Engineering Experiment Station.
Engineering Extension.
B. Restricted Funds.
Reserve for Outstanding Orders.
University.
Agricultural Experiment Station.
Engineering Experiment Station.
Auxiliary Enterprises.
Available for Current Use.
University.
Agricultural Experiment Station.
Agricultural Extension.
Engineering Experiment Station.
Auxiliary Enterprises.
C. Reserves.
For Inventories.
For Revolving Funds.
For Breakage Funds.
For Accounts and Notes Receivable.
For Impounded Cash.
For Doctor's Thesis Deposits.

For Special Merit Scholars.

II. Loan Funds.

III. Endowment and Trust Funds.
- A. Land-Grant Endowment.
- B. Consolidated Trusts and Endowments.
- C. Consolidated Sinking Funds.
- D. Special Trusts and Endowments.
- E. Women's Residence Hall Bond and Coupon Account.
- F. Trusts and Endowments Not Liquidated.

IV. Plant Fund Liabilities.

V. Agency Funds.

VI. Non-Educational Funds.

REVENUE

For the University: Administration, Research, and Physical Plant.
For Engineering Experiment Station.
For Engineering Extension.
For Agricultural Experiment Station.
For Department of Agricultural Extension.

EXPENDITURES

For the University: Administration, Instruction, Research, and Physical Plant.
For Engineering Experiment Station.
For Engineering Extension.
For Agricultural Experiment Station.
For Department of Agricultural Extension.

Verification of Income. The income provided for state universities from state funds, derived from taxation, can readily be verified from the legislative appropriation bill and the balances in the various state funds by communicating with the state treasurer's office. Tuition fees can be proved in totals from the register of enrolled students in the catalog or from the published student directory, after making the necessary provisions for scholarships, fellowships, and reduced fees. Diploma fees may be verified from the list of graduates and recipients of higher degrees as shown in the university catalog. Laboratory fees may be accounted for through the enrollment of students in courses where laboratory fees are charged.

Departmental sales can be verified by reference to pro-

duction records (in the case of agricultural departments) or to the sales data kept by the departments; the income from departmental sales for the colleges of agriculture is generally credited to the departmental appropriation accounts. As a rule, therefore, the departments themselves may be relied upon to account quite fully and accurately for the income from their own sales.

Investments. In privately endowed schools, where the income is derived largely from investments, the investments themselves must be verified by actual count and inspection (in the case of securities), by reference to the deeds to property, and by inspection of the agreements with donors. The income from these various investments and properties must be verified in the usual way as heretofore outlined.

What has been said regarding the opportunity for improvement in business procedure and accounting systems of municipalities, may be applied with the same force and in substantially the same way to educational institutions. The auditor will often find opportunity to render valuable services along these lines.

Test Yourself on Essential Points

1. How are the accounts of an estate regulated by state law?
2. Outline the method of verifying the accounts of an executor.
3. What distinction is there to be made in the accounting plan of educational institutions over that of a trading business?
4. How would you verify the income of a state university?

Chapter XXXVIII

MISCELLANEOUS AUDITS (Cont'd)

Club and hotel accounts—Income from rooms—Guest registration—Income from restaurant—Special accounts to be considered in a club—Accounts of charitable institutions—Accounts of theaters.

Club and Hotel Accounts. Club and hotel accounts are so similar in many respects that they may be considered together. A club is virtually a hotel for members only, with certain additional social features not offered by hotels. Moreover the hotel charges are generally collected in cash as the guest departs, whereas the club extends credit to its members.

The most important thing an auditor should do when called in to audit clubs or hotels, is to examine thoroughly the system of accounts in use. The larger hotels have provided effective safeguards for their accounting. This is essential, since most of their income is in cash. The revenue of hotels may be conveniently divided into income from rooms, from restaurants, from cigar counters, and from rents.

The income from rooms can be verified from a number of sources. In the first place the guest register contains the names of all who have in any way utilized the hotel facilities. Consequently, for each registration, there should be a charge on the room ledger or a cash entry for meals, if no room was occupied. Or, if the guest had an account, a charge should appear in the accounts receivable ledger. A comparison of all these charges with the guest register is the most direct check on room revenue. It should, however, be supplemented by comparing with the guest register the housekeeper's record of rooms occupied and vacated.

Guest Registration. Some hotels require their guests to register on cards, the cards, at one and the same time, serving as a ledger for current charges against the guests

and as the file for occupied rooms (the room tray). Such cards are numbered consecutively and each number must therefore be fully accounted for. Each card provides also for charges made to the guest's account covering telephone calls, meals, laundry, etc. The card tray is in reality a bookkeeper's ledger. When the guest departs, he calls for his account. The bookkeeper foots up the amounts as indicated by the card, passes it over to the cashier, and instructs the guest to pay his bill at the cashier's window. The card is then stamped paid, the amount collected is entered in the cash book (properly distributed and classified), and the cashier then returns the "paid" card to the bookkeeper to be filed by number. It is to be noted that when the guest originally registers on the card, a carbon copy may be obtained of his registration, which may be used for the mail tray or room tray if it is found undesirable to combine the room tray with the bookkeeper's file. It is essential that the collection of cash be entirely divorced from the activities of the desk (or registry) clerk and the bookkeeper.

Income from Restaurant. Income from the restaurants may be verified by checking the cash and charge tickets (which should be consecutively numbered) turned in by the restaurant cashier against the chef's records of meals prepared and served. The entire restaurant operations must also be related to the inventories of food supplies. Income from cigar counters should be verified from the cash registers and from the commissary records of cigars turned over to the cigar counters.

Many hotel companies sublet certain spaces (especially on the ground floor) for stores. The auditor must examine the leases and verify the income from rents in accordance with the lease provisions.

The inventory accounts must be carefully examined and all purchases evidenced by proper vouchers. The pay rolls must be fully checked, the accounts receivable scrutinized and, if necessary, circularized for confirma-

tion, and the depreciation rates on furniture, linens, glassware, etc., inspected.

Club Accounts

Club accounts, as a rule, are not as well safeguarded as hotel accounts, and the dangers from peculation are much greater. Wherever possible the cashier's functions should be entirely separated from the bookkeeping. Members should be requested to pay their bills by check rather than in currency, and all charge or sale forms should be numbered consecutively. Membership dues may be verified from membership rolls and from the minute book wherein the names of new members are indicated. Revenue from rooms should be tied up with the housekeeper's record of rooms occupied. As in the case of hotels the income from restaurants should be reconciled with the inventory records and proper depreciation provided for club-room furniture, club building, and other property.

Accounts of Charitable Institutions

Charitable institutions are either public or private. Institutions like orphanages, asylums, and hospitals operated by the states are generally audited by representatives of the state administration. State institutions derive their income almost entirely from government appropriations which are more or less limited as to their use. In auditing such accounts the charges to the various appropriations must be carefully inspected and they should be evidenced by properly authorized vouchers. The income from pay patients should be checked from the registration records.

Privately endowed charitable institutions are supported by donations or as in the case of hospitals by donations and income from patients. Donations may usually be verified from published lists of donors or by corresponding with the donors themselves whenever the published lists do not specify amounts and there is a suspicion of

irregularities. Many private charities keep their accounts on a cash basis, with the result that their operations are not properly recorded. The books should show the entire revenue earned and the actual cost of operations.

Theaters

As the income of theaters is practically all cash, the audit of the Cash Account is of the very greatest importance. Because of the great amount of detail, the auditor cannot be expected to audit the Cash Account in full. The treasurer is expected to do this detail work. It will be necessary, however, to make a number of exhaustive tests.

In the regular theaters the tickets presented by the audience are torn by the doorkeeper and the seat coupon is retained by the spectator. The part retained by the doorkeeper bears the same seat number and date as the seat coupon. The canceled tickets should be retained for a period so as to afford an opportunity for either external or internal audit at some future time, and they should be arranged by dates and in groups under each date according to the various prices of different sections of the house. The revenue reported for each day should equal the amounts determined by multiplying the number of tickets in each group by the group rate.

All tickets should be numbered so that the entire capacity of the house can be accounted for; the unsold tickets must supply the numbers unaccounted for by the canceled tickets. Allowance must, of course, be made for complimentaries, but all complimentaries must be properly authorized by the management.

The income from ticket sales in moving-picture or vaudeville houses, where the strip, or tape ticket is used, can readily be verified. The numbers used during an entire season should be consecutively numbered. If such a plan is followed, the entire income can be verified by taking the number of the first unused ticket from the

strip or roll of strip which was used last in the season. This gives the total number of tickets sold, and is to be multiplied by the ticket rate—or rates, if there are various strips for different sections of the theater. There may be a free list, and proper deduction should be made therefor. The auditor must, however, secure the proper authorization for any free list.

The admission charges of all theaters (except where there are personal guarantees), should be ample to provide for all expenses of management and operation, and for a profit. The auditor should see that proper provision has been made for depreciation and all accrued expense (at the end of any period) and that nothing which rightfully belongs there has been omitted from the operations of a period.

Test Yourself on Essential Points

1. State what you consider to be the most important special problems arising in the following classes of audits and how you would deal with such problems:
   (a) Clubs and institutions.
   (b) Theaters.
   (c) Hotels.
   (From American Institute Examination.)
2. State how you would verify the income of a hotel?

Chapter XXXIX

INVESTIGATIONS

Fire Losses

Scope of investigations—Value of public accountant in case of a fire loss—Actual case illustrating procedure for determination of inventories at date of fire.

The work of the professional auditor is not confined entirely to that of balance sheet or detail audits of various types of businesses. He is frequently called upon to make special examinations or investigations. In some investigations a complete detailed audit is required; in some, a balance sheet audit is essential, and in others, only special phases of the business are examined sufficiently to obtain the desired results.

Fire-Loss Adjustments. Most business concerns anticipate the possibility of a fire and, therefore, insure their property accordingly, but a very few ever consider just how they will collect their insurance, in case of a fire. The auditor can be of real service to his client in the adjustment of claims. It has been proved in practice that in case of loss of merchandise by fire, a balance sheet prepared by a reputable public accountant has been of considerable value in establishing the correct amount of the insurance claim.

Case of Fire-Loss Adjustment. On March 24, 1938, the merchandise stock of a retail dealer in women's wear was destroyed by fire. It was, therefore, necessary to determine the value of the stock at March 24, 1938, since no perpetual inventory system was in use. The services of a well-known firm of certified public accountants was sought to compute the value of merchandise destroyed by the fire.

The computation was based upon the gross profit percentages revealed by the operations for the year 1937,

which may be said to reflect the conditions, also, during the short period from January 1, 1938. to March 24, 1938, As a result of this investigation the auditor submitted statements as follows:

1. Determination of gross-profit percentages for previous year.
2. Determination of cost of sales for the current year to date of fire.
3. Determination of inventory at date of fire.

The first step the auditor takes in an investigation of this nature is an examination of the methods of bookkeeping in force, and the method of keeping records of stock. If no perpetual inventory is maintained, it is necessary to calculate the amount of the loss upon the usual basis; that is, to take the last recorded inventory, add purchases to date of fire, and deduct cost of goods sold, the result being the stock on hand at time of fire.

Determination of Gross-Profit Percentages. As a result of examining the inventories at January 1, 1937 the auditor made tests of their valuations and included therein stock held on deposit. The methods of accounting for purchases and particularly the purchase discounts were tested. The freight on purchases during the year 1937, was also carefully examined and an equitable distribution was made to the general classes of goods handled. After testing the inventories at December 31, 1937, and the sales distribution, the figures in the accounting records and also those shown on the income tax report were accepted. The auditor then prepared the following statement to determine the percentages of gross profits to sales:

DETERMINATION OF GROSS-PROFIT PERCENTAGES FOR YEAR 1937

	Millinery	Dresses, Skirts, Coats, and Suits
SALES	$118,721.72	$290,360.57

COST OF SALES:		
Inventory, January 1, 1937	$ 5,915.65	$ 63,269.84
Purchases	61,415.10	212,457.55
Express Inward	610.27	4,053.49
Totals	$ 67,941.02	$279,780.88
Less—Discount on Purchases	3,588.57	17,724.72
	$ 64,352.45	$262,056.16
Deduct—Inventory, December 31, 1937	5,622.00	71,675.94
Total Cost of Sales	$ 58,730.45	$190,380.22
GROSS PROFIT ON SALES	$ 59,991.27	$ 99,980.35
PER CENT OF GROSS PROFIT TO SALES	50.53	34.43

COST OF SALES TO DATE OF FIRE. These percentages were then applied to the sales of 1938 to the date of the fire and the gross profits were determined as follows:

DETERMINATION OF COST OF SALES
FROM JANUARY 1, 1938, TO DATE OF FIRE

	Millinery	Dresses, Skirts, Coats, and Suits
SALES	$18,930.76	$65,029.36
Less—Allowances and Discounts	118.49	854,35
NET SALES	$18,812.27	$64,175.01
GROSS PROFIT ON SALES. (Based on percentages in previous statement)	9,505.84	22,095.46
COST OF SALES (to date of fire)	$ 9,306.43	$42,079.55

Determining Inventory at Date of Fire. After having found the cost of sales of the current period to the date of the fire, the auditor's next step is to ascertain the total cost of merchandise to be accounted for during the same period. Deducting from the amounts so obtained the cost of sales, the balance is the estimated value of the inventories at the date of the fire. As a result of this procedure the following statement was prepared from the data found in the accounting records.

DETERMINATION OF INVENTORY AT DATE OF FIRE MARCH 24, 1938

	Millinery	Dresses, Skirts, Coats, and Suits
Inventories, January 1, 1938	$ 5,622.00	$ 71,675.94
Purchases	10,211.07	48,397.77
Express Inward	85.76	851.66
Totals	$ 15,918.83	$120,925.37
Less—Purchase Discounts	785.24	4,458.12
	$ 15,133.59	$116,467.25
Deduct—Cost of Sales (as per Former Statement)	9,306.43	42,079.55
INVENTORY AT DATE OF FIRE	$ 5,827.16	$ 74,387.70

The cost of goods sold is ascertained by deducting from the sales the average gross profit realized in prior periods. Fire insurance adjusters often take advantage of the business man whose records are poorly kept. Consequently he is usually forced to settle his insurance claim upon a basis satisfactory to the adjuster. If, however, the business man's last inventory has been certified to, he can refuse to compromise and insist upon the full amount of his claim computed in the manner set forth in this case.

Determining Values by Classes Important. In case a business is handling more than one line of goods, reliable values of the loss by fire can be obtained only by applying the average per cent of gross profit to sales of each class, to the sales by the same classes for the period from the beginning of the year to the date of the fire. In the case which has just been shown the total loss by fire is summarized as follows:

Millinery	$ 5,827.16
Dresses, Skirts, Coats, and Suits	74,387.70
Total Loss	$80,214.86

If the auditor in this case had calculated the estimated loss of merchandise destroyed by fire in total, disregarding the departmental classification of sales, purchases,

and inventories, there would have been a difference of $846.73 in the values representing the loss. The percentage of gross profit to sales for the year 1937 would have been stated as 39.1, computed as follows:

Sales, Year 1937	$409,082.29
Cost of Sales	249,110.67
Gross Profit on Sales	$159,971.62
PER CENT OF GROSS PROFIT TO SALES	39.1

The amount of merchandise to be accounted for at the time of the fire and the cost of sales for the period from January 1 to March 24 would be calculated thus:

Inventories, January 1, 1938		$ 77,297.94
Purchases from January 1 to March 24, 1938		58,608.84
Express Inward		937.42
Total		$136,844.20
Less—Purchase Discounts		5,243.36
TOTAL MERCHANDISE TO BE ACCOUNTED FOR, MARCH 24, 1938		$131,600.84
Sales, January 1 to March 24, 1938	$82,987.28	
Deduct:		
Gross Profit (39.1%)	32,448.03	
Less—Cost of Sales for Period		50,539.25
VALUE OF GOODS DESTROYED BY FIRE		$ 81,061.59
Loss Computed by Departments (as above)		80,214.86
Difference in Computations		$ 846.73

Since various classes of merchandise carry different percentages of gross profit to sales, it is important to ascertain the value of the stock destroyed according to the different lines of goods to establish the correct amount of an insurance claim to be passed upon by the insurance adjusters.

If perpetual inventories are maintained, they usually furnish the best possible evidence of quantities. In some cases where the quantities of goods sold, purchased, and on hand, are available, the quantities of each class of merchandise may be very approximately determined at the date of the fire. If there are no perpetual inventories,

resort is usually had to the gross-profit method. The values thus ascertained may be subject to scaling down by the adjuster for depreciation in the value of goods which are shopworn, damaged prior to the fire, or out of style. In this connection it is important to note the effect on the estimated inventory valuation, if the inventory at the date of the last closing was marked down because of deterioration.

Test Yourself on Essential Points

1. Distinguish between a balance sheet-audit and an investigation.
2. The entire stock on hand of a mercantile concern is destroyed by fire. The accounting records are saved. How would you ascertain the amount of loss to claim against the insurance company? (From C. P. A. Examination.)

Chapter XL

INVESTIGATIONS (Cont'd)

Partnership Dissolution

Methods of dissolving a partnership—Dissolution by the partners—Accountant's work in the investigation—Illustrative problem and solution—Dissolution by law—Dissolution by court order.

Partnerships may be dissolved in several ways:

1. By the act of the partners.
2. By law.
3. By court order.

In all of these three types of dissolution, different influences and factors are at work, so that an audit to determine partners' equities, or the rights and claims of others, would vary in its scope and nature with each type of dissolution.

Dissolution by Partners. Self-imposed dissolution may occur as a result of a mutual agreement among the partners, or because the articles of co-partnership specify a definite period of partnership existence. Partnerships formed to perform particular transactions end when the transactions have been completed, these latter being much like joint ventures.

In most states, the withdrawal of a partner, or the sale of his interest, dissolves the partnership. In this way, the will of one partner suffices to break the partnership, although remaining partners may recover damages for breach of contract.

A partnership is considered voluntarily dissolved, when a new partner is admitted even though the articles of co-partnership provide for some definite admission at a certain time. Naturally in such cases the firm will go on, but legally the old partnership is considered dissolved and a new partnership is in existence.

An assignment in trust, by a partner of his interest, effects a dissolution in most states. A dissolution also occurs through an involuntary assignment in case of the partner's bankruptcy. In such event, the court may sell the partner's interest thus dissolving the partnership.

The Accountant's Work in Investigations. The public accountant is often called in at the time partnerships are voluntarily dissolved, and his assignment usually consists in establishing and determining the assets and liabilities of the partnership and the respective equities of the partners in the net worth. If there are definitely written articles of co-partnership, it becomes the auditor's duty to refer to these and to guide his conclusions and findings by the stipulations contained therein.

Illustrative Problem. The following facts are given in a case to show how the public accountant must attack his problem:

1. A. B. Company was organized January 1, 1933, as a partnership by A and B to which each contributed $20,000.00 capital; the existence of the partnership was limited by the articles to a period of five years, that is, the partnership was to be dissolved at the close of business, December 31, 1937. If at that time the business had proved to be a success, it was to be reorganized as a corporation.

2. The articles of copartnership among other things contained the following stipulations:

   (a) Profits and losses were to be shared equally at the end of each year, but the partners were each to contribute 10 per cent of their profits to a special capital reserve.

   (b) A's salary was fixed at $6,000.00 a year and B's at $4,000.00. These might be drawn out fully, at intervals during each year, or they might be left in the business to form part of the partners' capital accounts. Transfers to capital accounts were to be made at the close of each year from the partners' salary-credit accounts. No interest was to be allowed on the salary-credit balances until they were transferred to capital account at the end of the year, each partner then exercising the option of withdrawing salary balances or of transferring the balances to capital.

(c) Interest at the rate of 6 per cent was to be paid to partners at the end of each year, and was to be treated as an expense in the determination of the net profits. Interest was to be actually paid and was not to be credited to the partners' capital accounts. Partners could, at any time, however, contribute additional capital, if needed in the business, or they were free to make loans to the firm at a 6 per cent interest rate. Interest on loans was also to be actually paid and was not to be credited to capital accounts. The interest on capital accounts was to be computed on the average obtained from monthly balances, for each year.

(d) Withdrawals of partners' capital during each year were limited to 10 per cent of each partner's capital account at the beginning of each year, unless a loss had occurred in the prior year. In the latter event there were to be no capital withdrawals during the year immediately following.

(e) At the expiration of the partnership agreement, the equities of the partners were to be established, the goodwill (if any) computed, and the interests of each partner in a new corporation to be fixed, it being assumed that the new corporation was to be entirely controlled and owned by A and B.

What would an auditor, or public accountant, who was engaged to determine the rights and equities of the partners, the claims of outsiders, the goodwill of the business, and the partners' positions in the new corporation, all as of December 31, 1937, be required to do?

Solution to Problem. Without giving any figures, this question would be answered as follows:

1. The articles of copartnership would have to be carefully read and all of its essential provisions comprehensively interpreted with the aid of the contracting parties.

2. The amount and value of the capital originally contributed would have to be established. In this case, the auditor would have to assure himself that each partner contributed $20,000.00. Capital contributions are not always in the form of actual cash. They may be made in valuable properties or rights upon which a capital value has been set. In cases of dispute as to values, the auditor may be called upon for an opinion as to values that have been contributed in other forms than cash. This opinion may be concerned with either tangible or intangible property.

3. If profits were made during each year of the partnership, the

auditor would have to make sure that 10 per cent of each partner's allotted profits each year was transferred to a special capital reserve. At the end of the period of partnership the balance in this reserve would be closed in equal amounts, to the partners' capital accounts.

4. The salaries stipulated would have to be checked, and since the articles so state, the auditor would have to make sure that any salaries not drawn were credited to partners' capital accounts at the end of each year only, and that no interest was allowed on salaries not withdrawn until they became part of the capital accounts at the beginning of the ensuing year.

5. The interest computed on the partners' capital accounts would have to be verified, and should show as an expense at the end of each year before divisible profits were computed. The auditor would have to satisfy himself that the interest was actually paid and not credited to capital accounts. The rate of interest, of course, and the amount thereof would also have to be verified by establishing each partner's annual investment average from each year's monthly balances.

6. Assurance would have to be had that capital withdrawals (that is the partners' drawing accounts), did not exceed 10 per cent of each partner's capital account as it stood at the beginning of each year. Drawing accounts are generally considered as representing withdrawals of capital and should not be confused or merged with salaries taken by the partners. If there were any net losses during any of the years, the auditor would assure himself that there were no withdrawals during the following year and, of course, that the net loss was charged equally against the partners' capital accounts.

7. If goodwill had developed as a result of net profits in excess of a normal return on the partners' investment, that goodwill would be computed in the way most expressive of the particular business involved and would be set up on the books at the end of the partnership term by charging Goodwill Account and crediting the partners' capital accounts in equal amounts.

8. The assets and liabilities of the partnership, at December 31, 1937, would have to be definitely established by the usual processes of auditing already described. The auditor should set up his own bill as one of the liabilities or else provide for its payment through the partners individually. Although a partnership, as such, pays no federal income tax, the auditor should call for the partnership returns which are required by law, and the returns of the individual partners who include partnership profits, and interest paid them (as well as salaries) on their individual income-tax returns. These reports should all be compared and examined as to their accuracy and, at the same time, the auditor must make sure that there are

no additional assessments arising from partnership profits and income, and that the amounts reported for Federal taxation are fully in accord with the Federal Revenue Acts.

9. After the auditor had fully satisfied himself as to the profits of all the years and the propriety of the capital accounts, he would prepare a final balance sheet of the partnership under date of December 31, 1937. This balance sheet would disclose all of the assets and liabilities of the partnership and the partners' capital accounts, the latter representing the respective equities of the two partners in the business.

10. If asked to do so, the auditor would finally close the books of the partnership in the following manner. We will assume that the net assets (assets minus liabilities) were being transferred to a new corporation which we may call the A. B. Corporation and that the total assets were $150,000.00, liabilities $50,000.00, A's capital $40,000.00, and B's capital $60,000.00:

JOURNAL ENTRIES CLOSING PARTNERSHIP ACCOUNTS

(1)

A. B. Corporation........................	$100,000.00	
Liabilities (detailed)	50,000.00	
Assets (detailed)		$150,000.00
To charge A. B. Corporation with net value of business sold to it December 31, 1937.		

(2)

A Capital Account........................	$ 40,000.00	
B Capital Account........................	60,000.00	
A. B. Corporation..................		$100,000.00
To credit A. B. Corporation with A's and B's Capital Accounts, A and B having accepted capital stock of A. B. Corporation in payment of sale of their business to the corporation.		

* * *

11. The books of the corporation (assumed capital stock $150,000.00) would be opened as follows:

(1)

Unissued Capital Stock..................	$150,000.00	
Authorized Capital Stock..............		$150,000.00
To record total capital stock authorized.		

(2)

Subscriber's Accounts:		
A	$ 40,000.00	
B	60,000.00	
Unissued Capital Stock..............		$100,000.00
To record subscription of A and B to Capital Stock of Corporation.		

(3)

Sundry Assets	$150,000.00	
Sundry Liabilities		50,000.00
Subscribers Accounts:		
A		40,000.00
B		60,000.00
To record payment of Capital Stock Subscriptions of A and B by means of net assets of $100,000.00 transferred by them to the corporation.		

Dissolution by Law. A partnership is dissolved by operation of law—

1. At the death of a partner.
2. By the adjudication of a partner or the firm, as bankrupt or insolvent.
3. By the business of the firm becoming unlawful.

In the case of dissolution by the death of a partner, the auditor called in to adjust affairs will naturally determine the equities of all the partners in much the same way as in voluntary dissolution, but, in addition, he must know and observe a number of legal requirements. He must know that the deceased partner's share of real estate owned by the partnership, in many states, passes to the heirs of the deceased subject to a trust in favor of the partnership until the debts of the latter are paid. He should also know that a provision in the articles of agreement providing for a continuation of the business at the death of a partner creates a new partnership and does not really continue the old one. Again, the executor of a deceased partner's estate cannot be compelled to take the deceased partner's place even though this may be provided in the will of the deceased. Very often, of course, a new partnership goes on with the real estate

owned by the old partnership, if the executor of the deceased and the court can be satisfied with a money settlement. If the real estate must be sold, the same effect may be gained by having a bona fide sale of it made to the surviving partners. It can readily be seen that the auditor must be equipped with some knowledge of the inheritance laws of his state when death dissolves a partnership.

Dissolution by bankruptcy or insolvency of a partner also has its legal angles, especially since such a dissolution occurs without notice to creditors. Moreover, dissolution occurs when the firm makes an assignment in favor of its creditors, and in some jurisdictions when one partner makes such a general assignment. Not only must the rights of outside creditors be fully included in the auditor's purvey of things, but the individual partner's bankruptcy in many instances will affect the other partners' equities, especially when the personal relations between the partners have been quite intimate and inter-related.

Dissolution by Court Order. A partnership may be dissolved by a court in equity, an accounting ordered, an injunction against the disposition of assets issued, and a receiver appointed in cases where the partnership is guilty of intentional misconduct, has been fraudulently formed, where one of the partners is insane, or where circumstances exist which show that the partnership cannot hope to continue successfully.

If fraud is involved in the formation of a partnership, and the auditor is called in, it is at once apparent that it becomes his task to expose the fraud and to disclose the methods used in its perpetration. He may work at the direction of the court and thus represent all interests involved, or he may be retained by a damaged party, in which event he must know how to establish the rights and claims of his client before the court or as the basis of civil suit against the wrongdoers in the transaction.

A very thorough knowledge of partnership law, the Bankruptcy Act, inheritance laws, and frauds is a necessary equipment of an accountant who expects to deal extensively with partnership dissolutions.

Test Yourself on Essential Points

1. State three ways in which a partnership may be dissolved and outline the procedure in each case.

2. A and B trading in partnership decide to admit C as from January 1, 19—. They agree with C as follows:

> C is unable to contribute any tangible assets as his capital investment, but agrees to allow his share of the profits to be credited to his capital account until he shall have one-fifth interest. C is to share profits and losses to the extent of one-fifth.
>
> C is to receive a salary of $3,000.00 per annum, payable monthly in addition to his share of profits.

During the six months ended June 30, 19—, the business has sustained unusual losses, and it is decided to dissolve the partnership.

The balance sheet at that date is as follows:

Assets		Liabilities	
Cash	$ 500.00	Accounts Payable	$12,500.00
Accounts Receivable	12,500.00	Capital:	
Merchandise	5,000.00	A	10,000.00
Furn. & Fixt.	1,500.00	B	5,000.00
Goodwill	2,500.00		
Deficit:			
Being loss on trading for six months	5,500.00		
	$27,500.00		$27,500.00

A public accountant has been asked to make an investigation. C is ascertained to be worthless.

You are required to outline what steps must be taken by the accountant in the conduct of this examination to establish the status of each partner.

3. (a) What circumstances can cause the dissolution of a partnership?
   (b) Does dissolution necessarily result in the actual termination of the business formerly conducted by the partnership?
   (c) What authority has a partner after dissolution?

(From American Institute Examination)

4. Brown, Smith, & Jones, a firm, decide to dissolve partnership and to liquidate the business. Lacking confidence in each other, the partners employ you to conduct the liquidation and to determine the correct amounts due from or to each partner.

Describe in detail the steps you will take.

(From American Institute Examination)

Chapter XLI

INVESTIGATIONS (Cont'd)

Fraud and Defalcation

The commercial crime situation—Methods of defalcation by cashiers—Credit frauds—Stock frauds.

The detection of frauds and defalcations was at one time conceived to be almost the sole function of the public accountant, and in spite of its recent relegation to the background, because of the ever-increasing scope of the public accountants' activities, it is still an important phase of professional work. In fact, it may be said that, because the accountants' activities have been largely centered about the more or less constructive needs of business, too little attention has been given to the problem of business frauds and financial defalcations. Public accountants, no matter what the basis of their engagement may be, should always keep an eye wide open for the detection of irregularities and frauds. The commercial crime situation in the United States is deplorable, and the resultant losses are almost staggering in amount.

The auditor may encounter two general classes of frauds in the course of his work. These are:

1. Those perpetrated in order to conceal actual theft.
2. Those which do not involve theft, but which are committed in order to show a false financial condition.

Frauds in the first class are usually committed by employees who have been entrusted with cash or other valuable property without safeguards in the form of proper internal check. Those in the second class may be committed by the management to the detriment of investors. They may take the form of overstating financial condition and results of operations, or they may have just the opposite effect; i. e., creating secret reserves. As an independent examiner, the auditor has as great a responsibility to expose the second class as he has to expose the first

class, regardless of whether he has been engaged by the management or by other interested parties.

On another basis, frauds may be classified as embezzlements, forgeries, credit frauds, and stock frauds. Losses from embezzlements and forgeries are not comparable in amount with those resulting from credit and stock frauds. Nevertheless, the business man and the accountant have focused most of their attention on these relatively smaller losses, because—

1. They are, as a rule, more or less spectacular.
2. They generally concern some individual in whom trust has been imposed, thus bringing the human factor clearly into the limelight.
3. They are more readily exposed and traced.
4. In many instances, they are recoverable because of insurance protection.

Defalcation by Cashiers. We cannot here describe all of the tricks and methods used by embezzlers and how these may be detected. The following are descriptive of the usual methods:

1. When receiving cashier or teller, who does not have access to any other books of account than his own cash book, does not deposit all receipts in bank.

If he has entered all moneys received by him in his cash book and all receipts are supposed to be deposited, the cashier's shortage can be detected by comparing the bank statements of deposits with the totals in the cash book, assuming, of course, that the totals are correctly footed. This is a pure case of theft and not of fraud, because no alterations are made on the books. Had the totals in the cash book been altered or individual amounts received been reduced, the case would be one of fraudulent theft.

2. Where a cashier in charge of the receipts cash book only, withholds amounts but makes no entry of them at all.

In this case the deposits per bank statements and the cash-book totals would agree, and if all receipts

came directly to the receiving cashier without a preliminary tally, from some one intrusted with the opening of the mail, an embezzlement of this kind would be somewhat difficult to uncover. If all receipts were from charge accounts, the receipts withheld would not appear and the customers' accounts would remain open for an undue length of time. Discovery of a defalcation of this kind could be effected by means of the monthly statements mailed to customers, assuming that the mailing of these statements was a function entirely independent of the cashier's activities. The customers would naturally draw attention to the fact that their accounts had been paid. But suppose that the cashier withholds amounts coming entirely from cash sales. If there are no sales slips in such cases the embezzlement can only be disclosed by means of a careful inventory check, because an inventory adjustment would surely have to be made for the goods sold but never accounted for. To safeguard against methods of this kind, a system should be invoked making cash sales without a cash slip or ticket impossible and by having all cash slips consecutively numbered. If, at the same time, it is required that all receipts be deposited intact in bank each day, and that all mail receipts be listed before going to the cashier, a very effective control over the cashier may be obtained.

3. Where a cashier takes money at one date to cover up a shortage of a previous date or dates.

Under this plan the cashier would not enter the cash at the time received but would defer entry until some other collection could be conveniently taken. Suppose $100.00 in currency is received on June 3, from John Smith, a customer and is part of $1,000.00 received that day from all customers. The cashier enters $900.00 of the receipts properly in the cash book, and deposits that amount; he keeps the $100.00 from John Smith. On June 8 the cashier receives $1,200.00, and feels that he

must now account for the Smith collection. He, therefore, enters $100.00 as received from Smith on June 8, but withholds $200.00 received in currency from Sylvester Jones. He deposits in bank $1,100.00, his cash book entries being influenced by the following factors:

Receipts June 8	$1,200.00
Less—Jones collection	200.00
	$1,000.00
Add—Smith collection of June 3, not previously accounted for	100.00
Amount entered in Cash Book and deposited	$1,100.00

Smith has now been properly credited, but in a few days Jones will have to be credited, and in order to do so, some other customer's remittance will have to be appropriated, which will probably be a larger amount than $200.00. If the cashier keeps up this process, keeps a very careful record of his actions and the customers' accounts involved and, at the same time, the abstractions are from currency collections, the embezzlement may gradually run up into a considerable amount. If spread out thin, and thus extended over a long period of time, this type of fraud is very difficult to detect and is generally uncovered by accident. If, however, the cashier begins to hold out checks, a very probable procedure after his manipulations of currency collections reaches a certain point in volume, his practices can readily be detected by checking the items on his bank deposit slip with the items on his cash book. Checks are individually listed and, as soon as checks are retained to cover either currency or other check shortages, discrepancies between the daily-deposit slips and the individual cash-book items will appear, although the totals will be the same in both places.

It is almost needless to say that this kind of fraud should be prevented rather than detected. The simplest preventive is to arrange that the proprietor or the man-

ager of the business delegate a responsible individual to open all mail and to make an independent list of all checks and currency received. The total of these and the individual items should be checked daily against the bank deposit slips. At the same time the system should provide against the cashing of checks, change-making and payment of bills on petty expenses out of daily collections. A separate cash fund should be provided for those emergencies and needs.

4. Where a cashier receives and disburses funds and, at the same time, has access to or actually keeps the other books of account.

In a case of this kind, unless the manager of the business, or his assistant, receives and opens all mail, and lists therefrom, in detail, all checks and moneys received, the cashier-bookkeeper has almost an unlimited opportunity for peculation. If he retains currency from cash sales he can, through the journal, credit sales and charge some expense account and he can make the necessary charge to cost of sales for his credit to the inventory account reduced by the sale (if such an accounting procedure is in vogue). If he retains and cashes customer's checks he can credit the customer's account and charge either a regular expense account or discounts and allowances. He would probably not charge returned goods because someone might very probably discover that very few if any goods were returned.

Where a cashier (both receiving and paying) has full charge of all books, he can very easily enrich himself by creating fictitious liabilities (accounts payable), which he will liquidate by issuing checks to himself or to others that may be in collusion with him. This is especially easy if the cashier-bookkeeper himself, signs the checks. If checks are signed by the proprietor of the business and he requires the invoice before signing, it is still possible, unless purchases are very light, to submit a bill, already paid, a second time.

From the above discussion and few illustrations, it is readily apparent that the peculations of cashiers may take many forms and that eternal vigilance is necessary at all times when cash accounts are audited.

Credit Frauds. We have seen, from the estimates previously quoted, that credit frauds are about twice the amount of embezzlements. As a rule an entirely different personnel is involved in credit frauds. Ordinarily, of course, that personnel is the management.

A credit fraud may be defined as a misrepresentation, either verbally or in writing, which is made with the object of securing credit either as a purchaser of merchandise or as a borrower of money. The losses ensuing from this type of fraud arise and are determinable from the insolvency or bankruptcy of the fraud perpetrators. The fraud expresses itself in false balance sheets and profit and loss statements sometimes combined with verbal or written statements uttered in further explanation. Quite a number of states, including Illinois, Michigan, Ohio, Tennessee, California, and New York, have passed penal statutes dealing with the subject of obtaining moneys or merchandise on the basis of fraudulent statements. Fraudulent intent must naturally be proved before punishment can be meted out to the violators. In this connection it is important to note also the provisions amendatory to the National Bankruptcy Act which went into effect on August 27, 1926. These amendments now make it possible to oppose the discharge of a bankrupt if he has obtained money or goods on credit by means of false financial statements.

The dangers from credit frauds could be very materially minimized, if the commercial and rating agencies, and the banks would insist upon statements certified by reputable certified public accountants. In fact, if the Credit rating agencies would have a special designation for ratings based upon such independent audits, the

extension of credit would soon be largely influenced by such special ratings. In view of the fact that the great bulk of business is done on credit, one can readily realize how important it is for the public accountant to make his audit comprehensive and thorough, and to submit a certificate which discloses clearly the financial status of his client. If all business houses were carefully audited by reputable public accountants, the losses from credit risks would be enormously reduced.

Examinations under the Federal Securities Act. Losses from stock frauds are a real menace to the nation because they touch the very heart of national prosperity —the savings of the people.

In spite of the fact that almost all states have "blue-sky laws" regulating the sale of securities to the public, the losses from fraudulent security sales have been tremendous. The Committee on Interstate and Foreign Commerce estimated that fully $25,000,000,000 of some $50,000,000,000 new securities floated in the post-War period proved worthless under the stress of the depression.

The state laws have failed to protect the public largely from lack of uniformity and from failure to control interstate sales.

Recognizing the urgent need for reform in the security and investment business, President Roosevelt on March 29, 1933, requested Congress to pass legislation for the "Federal supervision of traffic in securities in interstate commerce."

On May 24, 1933, Congress passed the Securities Act of 1933, the purpose of which is "to provide full and fair disclosure of the character of securities sold in interstate and foreign commerce and through the mails and to prevent frauds in the sale thereof."

While some of the provisions of the law have not as yet been subjected to judicial interpretation and considerable controversy exists regarding them, the Act, sub-

ject to modification and amendment, represents permanent legislation of far-reaching consequence.

The essential part of the law is the requirement that any person who intends to sell securities in interstate commerce or through the mails must first file a registration statement on forms prescribed by the Federal Trade Commission which must be approved before the security is offered to the public.

The law provides further that "in case any part of the registration statement (when such part became effective) contained

"(1) An untrue statement of a material fact or
"(2) Omitted to state a material fact required to be stated therein or
"(3) Necessary to make the statement therein not misleading,

"Any person acquiring such security (unless it is proved that at the time of such acquisition he knew of such untruth or omission) may either in law or in equity sue

"(1) Every person who signed the registration statement;
"(2) Every person who was a director of or partner in the issuer at the time of the filing of the part of the registration statement with respect to which his liability is asserted;
"(3) Every person who with his consent is named in the registration statement as being or about to become a director, or person performing similar functions or partner;
"(4) Every accountant, engineer, or appraiser whose profession gives authority to a statement made by him who has with his consent been named as having prepared or certified any part of the registration statement;
"(5) Every underwriter with respect to such security."

From this it can be seen that the accountant assumes financial responsibility for facts and figures in the registration statement if such facts and figures are used with his consent.

The extent and nature of the data required in Schedule A which makes up the registration statement are such

that no board of directors could assume the liability involved without a thorough audit of the accounts and records.

The object of the registration statement is to disclose all material facts about the security so that the investor will be given a fairer opportunity of appraising the prospects of the business in which he expects to invest his money.

The Federal Government does not intend that the acceptance of the registration statement should be construed as its approval or guaranty that the security is sound in the sense that the market value will be maintained or that it will earn a profit.

The Act merely insists that the investor be given such facts as will enable him to form a judgment of the soundness of the security at the time the security is offered to him.

The Commission has prescribed the forms for the presentation of the data required and it is evident that the accountant will play an important rôle in the regulation of security issues undertaken by the Act. It is hardly needless to say that the requirement of certified statements by independent auditors as prescribed in the Act is a definite step in eliminating some of the abuses that have heretofore existed in the security-marketing field.

Test Yourself on Essential Points

1. Outline the various forms of fraud that may be practiced by a cashier to misappropriate the cash funds of a business.
2. What steps should be taken to prevent such frauds?
3. Can you see any difference between a case of theft of cash and a case of fraud?
4. What is a credit fraud?
5. How can the dangers from credit frauds be minimized?
6. What are stock frauds and what preventive measures to curtail the evil of stock frauds may be followed?
7. What should be the attitude of the auditor when there is the first indication of fraud having been committed?

Chapter XLII

INVESTIGATIONS (Cont'd)

Reorganizations and New Financing

Incorporating from tax viewpoint—Consideration of changes in business organization—Types of reorganization—Refinancing—Examinations in connection with "blue-sky" law requirements—Types of securities—Procedure and legal requirements in Illinois—Miscellaneous special investigations—Purchase or sale of a business—Valuation of capital stock—System installation.

Very often, the public accountant is called in by business men to advise them as to the best form of business structure under certain conditions of business operations. This problem has many angles, and is by no means entirely a legal matter. There are other considerations deserving attention outside of the factor of legal responsibility. For example, there is the question of Federal income tax. The following case will illustrate the point. A partnership was dissolved at the close of the calendar year and became a corporation. The result of the misstep cost the business more than $9,000.00 additional income tax for the following year alone. This question always merits attention. For the year 1938 corporation income taxes approximate the rate of 18 per cent, whereas the tax on individuals, after considering both normal and surtax rates under ordinary conditions, is considerably lower.

Incorporating from the Tax Viewpoint. As pointed out in the preceding paragraph, the Federal income tax may be increased as the result of incorporation. While it is difficult to generalize about comparative Federal income tax liability, it is significant to note that the tax of a sole proprietorship or of a partnership differs from that of a corporation. Each situation must be studied individually to determine the advisability of changing the business structure from the standpoint of Federal income tax procedure.

It is necessary, also, to consider other taxes and fees

to which corporations are subject. These include:

Federal capital stock tax.
Federal excess profits tax.
Incorporation fees.
Annual license fees.
Special state taxes and fees.

Another point which should be taken into consideration is the effect of Social Security taxes. The members of a partnership are not employees within the meaning of the Social Security Act. Upon incorporation, however, their salaries as officers of the corporation would be subject to Federal Social Security Taxes and state employment compensation taxes to the extent provided in the laws.

Unless these Federal and state taxes are more than offset by the advantages of the corporate form of organization, it would be well not to incorporate. A tendency towards centralization has resulted from the many recent corporate taxes. Many industries which were decentralized into several separate corporations are eliminating as many as possible of their corporate units in order to avoid having separate corporate taxes imposed on each of these units.

Consideration of Changes in Business Organization. These details have been injected in order to show how careful the accountant must be in recommending changes in business organizations. In many instances it might be found that the advantages of certain legal immunities gained by incorporation would be far outweighted by the higher cost of corporate existence, of which Federal taxation is only one. On the other hand, where a business may be owned by many individuals, widely scattered, the costs of corporate existence are thoroughly justified. No other form of business organization is conceivable or feasible. The delegation of responsibility to a board of directors by stockholders makes possible a centralization of authority and a flexibility of management which could not be obtained in any other form of organization. Where financing on a large scale is necessary, it would be manifestly impossible to think of any other than the corporate

form of business organization. But, generally speaking, there has probably been too great a tendency toward incorporation on the part of small and medium sized businesses of purely local significance. Smaller concerns could probably be more effectively administered under a condition of concentrated investment and individual responsibility.

Types of Reorganizations. Usually, business reorganizations are of two types, namely:

1. Reorganizations of a single business in which the form is changed.
2. Reorganizations which result in the combination or merger of a number of concerns of allied objectives.

The latter type of reorganization we have already discussed elsewhere. The former type ordinarily, expresses itself in the change from individual proprietorship or partnership to the corporate form, generally with the idea of increasing business through the use of funds solicited from the general public. Again some of these reorganizations occur for the purpose of establishing present values of capital investment without admitting the general public. Whatever the object may be, the auditor is generally called upon to determine or to advise upon the following things:

1. The individuals' or partners' equities in the old business.
2. The amount by which the old equities should be increased because of present values of tangible properties, and because of the goodwill (if any) at present inherent in the business.
3. The total amount of capitalization to be provided for in the succeeding corporation and the class or classes of capital stock to be authorized and issued.
4. The amount of capital stock to be issued to the proprietors or partners of the old business on the basis of the revaluation indicated.
5. How the old proprietors are to retain control of the new corporate organization.

6. Closing the books of the old business and opening the books of the new corporation.
7. Installing a system of accounts for the new business.
8. Preparing the necessary data for state authorities for incorporation, state taxes or licenses, and possibly in connection with the requirements of "Blue Sky" laws and the sale of securities.
9. Preparation of financial statements for banks or stock brokers to be used in connection with the sale of securities to prospective investors.

Refinancing. If no change in the legal form of the business is contemplated, the auditor generally finds his task comprehended in the statements and reports which give emphasis to the stability of the business or to its earning power. Thus, a corporation already in operation, seeking new capital, would naturally have to prove that its appeal for additional funds was justified by a fine record of past earnings, by present financial solidity, and by good future prospects which would necessitate an enlargement of the capital fund. An individual proprietorship or a partnership seeking to mortgage property would be in much the same position. One can readily realize the large responsibility shouldered by the auditor in such cases. He must give full credit to the meritorious features of the business and yet he must be extremely careful not to become an advocate for his client. He must not himself try to sell the public, and the public must not be deceived in any way by the picture he paints. In short, he must state all the salient facts in any particular case, both good and bad, and must put the burden of drawing conclusions upon the readers of his statements and reports. He need not, for example, extol the excellency of management, because he may be able to convey the same message by saying that the management for the past several years was in certain hands and that certain results were obtained—the results generally expressing themselves in increased profits, or a fine dividend record, or in some other way. The auditor must give impartial

testimony by properly marshalling the salient facts; the public or the readers must be the judges.

In refinancing audits or examinations, the auditor should be expected to review and comment on the following features of the business:

1. A brief history of the business since its inception, showing changes in management and policies if any.
2. The present personnel of management.
3. The presence or absence of proper accounting systems.
4. A record of annual profits and losses since the business started.
5. The dividend record and policy since the inception of the business (if a corporation) or the amounts withdrawn by proprietors as profit distributions.
6. The policies with reference to enlarging the scope of the business and the amounts expended for these purposes.
7. The extent to which management and department heads are financially interested in the business.
8. An application of funds statement, for the entire history of business operations to show how working capital was increased or decreased, how property investment was increased, what dividends were paid and, finally, in connection therewith how injections of additional capital or increases in physical plant stimulated output or sales volume.
9. Significant comparisons between years or between natural periods of business operations.
10. Statements revealing present financial position and recent earnings, with a full disclosure of any contingent liabilities.
11. Statistics as to orders on hand, business rejected because of lack of working capital, and fields of expansion; present advertising and promotion policies, and contracts accepted both as to output and purchases.
12. Present banking connections and past relations with banks. Commercial ratings at present and in the past.

EXAMINATIONS IN CONNECTION WITH "BLUE SKY" LAW REQUIREMENTS

In most states capital stock cannot be sold by the issuing corporation or by brokers, until the securities commissions have officially licensed the act. Generally such sales are limited to a certain number of shares, and periodic statements are required showing the disposition of the proceeds, the financial position, and the earnings.

Types of Securities. As a rule, the states recognize two kinds of securities, namely, "speculative" and "nonspeculative."

"Speculative" securities are those issued by corporations which have no record of earnings; therefore, generally, new enterprises or older corporations that cannot qualify under the "nonspeculative" group. This does not mean that all new corporations may be qualified by license to sell stock, nor that the privilege will be accorded to corporations with inadequate earnings. These corporations must prove their worth before the state securities commissions in other ways. Their business must be legitimate, they must prove that they will be reasonably successful, and they must indicate the uses to which the sought funds are to be put. In addition, they must have been properly incorporated; the stipulated amounts of stock must have been subscribed and paid for, and the values for which stock was issued to original subscribers must be substantiated by appraisal, audit, etc. Stock issued to officers for goodwill and other intangibles is generally required to be escrowed, thus preventing the sale of promoters' stock. Already established companies, with inadequate earnings, are quite generally refused licenses because if such concerns did not earn a sufficient return on their capital stock in the past, the prospects of future earnings on a larger capital are extremely meager.

"Nonspeculative" securities are those issued by corporations whose earnings indicate a certain fixed or larger

return over a period of years, this return being related to the class, or classes of securities issued and outstanding. In Illinois, for example, a corporation wishing to sell its securities under Class C designation (nonspeculative) must file statements showing sufficient earnings for a period of two years prior to the date of application. How sufficient these earnings are, depends upon the kind and extent of the new financing. But no matter what kind of security the new issue is, the earnings must suffice to yield a certain return on the sum of the new issue and the amount already outstanding of the same kind of security, plus the requisite return upon any other security, having a prior claim on earnings.

Procedure and Legal Requirements in Illinois. Let us take an extreme case in order to illustrate the procedure and the legal requirements in Illinois. Corporation A has outstanding the following securities:

5% First Mortgage Bonds....	$500,000.00
Preferred Stock (7 per cent).	500,000.00
Common Stock	100,000.00

and it has just issued $400,000.00 of additional common stock which it wishes to sell to the public as a Class C security in Illinois. The law provides that the corporation must show average annual earnings during the last two years to equal—

1. 1½ times the interest charges on its interest-bearing securities;
2. 1½ times the preferred dividend rate on its preferred stock, and
3. 3 per cent on the common stock which is to be sold and on that already outstanding.

In other words, the average annual earnings of Corporation A for two years prior would have to be at least the total reflected by the following calculation:

7½%	on	$500,000.00	(Bonds)	$ 37,500.00
10½%	on	500,000.00	(Pref. Stock)	52,500.00
3 %	on	500,000.00	(Old and New Common)	15,000.00
				$105,000.00

If, instead of issuing common stock it decided to issue $400,000.00 preferred stock, its earnings would have to be as follows:

7½%	on	$500,000.00	(Bonds)	$ 37,500.00
10½%	on	900,000.00	(Preferred—Old and New)	94,500.00
				$132,000.00

But if, finally, it decided to increase the bonded issue, its earnings would only have to be 7½ per cent of $900,000.00 (old and new bonds) or $67,500.00. The priority of other securities in earnings over those issued must always receive consideration, but a security subordinate to that issued need not be considered as long as the subordinate security holders have agreed, as demonstrated by proper resolutions, etc., further to subordinate their position with reference to earnings or proprietary equities.

The Illinois Securities Act, which is quite similar to the laws in other states, thus provides a fairly effective check on undue expansion. In other words, past earnings must warrant expansion, and expansion is limited definitely by the profitableness of the business, that is, if securities are to be sold under a "nonspeculative" designation.

Before granting licenses to sell securities, corporations in Illinois must comply with certain requirements, most of which indicate the need for public accounting services; the certificates and reports of certified public accountants naturally receive a greater amount of recognition, as contrasted to statements prepared by noncertified accountants. The requirements are briefly as follows:

1. All essential information regarding the corporation, the classes of capital stock or securities to be offered for sale, information regarding incorporation, authorized capital stock and past changes therein, voting power of stock, dividend rates and nature of dividends, bonded indebtedness, if any.
2. Financial statements:
   (a) Latest balance sheet (not more than six months prior to date of application).
   (b) Balance sheet to show the effect of the new financing.
   (c) Profit and loss statement covering a period of not less than two years up to the date of the latest balance sheet.
   (d) Analysis of Surplus Account for the entire period of the profit and loss statement.
   (e) Various schedules covering Notes and Accounts Receivable, Inventories, Deferred Charges, Investments, Machinery and Equipment, Real Estate (Land and Buildings), Intangible Assets, Notes and Accounts Payable, Long-Term Indebtedness, Gross Sales, Cost of Sales, Operating Expenses, Depreciation, Other Income, Miscellaneous Expenses, Interest on Bonds, Notes, etc., and Contingent Liabilities.
3. Other details regarding officers, their past records, the amount of stock to be sold and the price, etc.

The Illinois law provides that the secretary of state may designate a certified public accountant to make an examination of the books and records of the applicant and shall fix his fee, the latter to be paid by the applicant. Here is a clear recognition of the value of audits made by certified public accountants. In most cases, the selection of a certified public accountant is left to the corporation seeking to sell its securities, and the statements are all prepared by the certified public accountant. An examination of the statements and detailed schedules, called for by the law, indicates clearly a comprehensive, thorough, and, of course, unbiased task for the auditor.

It should also be remembered that after a license has been granted to sell securities, the issuing corporation must file semiannual supplementary statements showing

the moneys received, the disposition of funds, balance sheet and income statements, etc. These too are generally prepared by the certified public accountant who presented the initial statements.

We have discussed thus far the requirements with reference largely to the nonspeculative type of security. The requirements are even more stringent with regard to speculative securities. But these larger requirements are imposed upon the issuer of the securities and not upon the accountant. The accountant's task is much the same, as before outlined, although of smaller compass, because of the newness of the issuer's business. The state of Illinois publishes a small manual covering instructions as to statements required under the Securities or Blue-Sky Act, and the forms called for are shown in detail.

MISCELLANEOUS SPECIAL INVESTIGATIONS

Purchase or Sale of a Business. The investigation to be made by the auditor when a business is to be sold or to be purchased, as the case may be, resembles very largely that which occurs when a business is reorganized and much the same considerations are controlling. Whether the accountant represents the buyer or the seller, he must disclose the facts in an unbiased manner. He is not a salesman. He must know the present value of that which is to be bought or sold and, if an appraisal is necessary, he should recommend it. He himself should be able to appraise intangibles like goodwill, an item which appears quite generally when a business is sold.

Valuation of Capital Stock. Requests are quite often made of auditors to determine the value of capital stock. Let us remember that in consolidations it is often the practice to purchase the capital stock of prospective subsidiaries. Then, again, quite often a controlling stockholder or group of stockholders in an individual business may want to sell their interests to other stockholders or

outsiders who want the business. Here again the auditor must be able, by means of his own and other appraisals, to arrive at a fair value of the capital stock. The agreements between buyer and seller are naturally controlling. Contracts may specify present value of stocks as the basis or they may mention "book value." In specifying "book value," it is assumed that the books of account correctly reflect the value of the stock, but if they do not, it may be assumed that "book value" represents correct book value and that needed corrections should first be made on the books.

We can hardly believe that sales of stock on the basis of "book value" should embrace the results of appraisals not on the books. It might be contended, however, by some, that certain assets not on the books specifically, like goodwill, are nevertheless reflected as existing because of the financial strength of the business or because of its book record of earnings. There is a chance here of falling into a serious error.

If a company is very strong financially, and has developed a goodwill, but yet has confined its distribution of profits to a stipulated annual dividend rate, it is proper to hold that the goodwill increment (excess profits over a normal return on capital) is already largely reflected and present in the surplus account, the latter naturally influencing the book value of the capital stock. If, on the other hand, excess earnings have not been permitted to accumulate, but have been distributed liberally, the owners of the business have already been largely paid for their goodwill. They can expect to receive, therefore, only for that measure of goodwill which represents the future excess earning power of the business; in other words, for the earning power which they are denying themselves but which may or may not accrue to the purchasers of their stock. Goodwill is so much a matter of management and personal power, that prospective excess earnings of a business shorn of that

management are more or less speculative. All these matters the auditor must weigh very carefully when valuing capital stock.

System Installations. The matter of making investigations and surveys for systems installations is not primarily an audit engagement, although an audit will quite frequently indicate the weaknesses which a new system of accounts is expected to eliminate.

The extent of an investigation for system installation is influenced by the kind of system that is wanted. One concern may want only its cash accounting systematized, another may call for a system of accounting throughout the entire business. The system needed by a retailer is entirely different from that required by a manufacturer, even though the accounting principles are largely the same in both cases. The systematizer—accountant—must, therefore, be able to adjust himself to these variables, and he must be thoroughly grounded in his information about accounting methods, accounting principles, accounting forms, and the uses of mechanical accounting devices. Without this information, and a fund of varied experience, establishing contacts with many different kinds of businesses, no accountant is justified in posing as a systematizer except in the most limited sense.

The systematizer must be able to interpret the operations of any and all factors of a business. He must be able to see whether all activities are properly correlated and, finally, he must draft the forms and suggest the means whereby all the operations of a business may be properly and analytically reflected in periodic statements. His task is one of great responsibility and, if his work is effective, he is a most valuable adjunct to business management.

Test Yourself on Essential Points

1. The Automatic Fountain Pen Company consists of a partnership of four active partners, and has made an average annual net profit of $145,000.00. Two of the managing partners believe

that it is advisable to incorporate. The counsel of a public accountant is sought. From the standpoint of present income taxes as well as other considerations, outline whether the public accountant should recommend changes in the organization.

2. State and explain the usual types of reorganization.

3. Outline the public accountant's responsibility to both his client and the public in the case of an investigation of a corporation, already in operation, seeking new capital.

4. In refinancing audits and examinations, outline the features of the business which the auditor should be expected to review.

5. How should the auditor proceed in an examination in connection with "blue-sky" law requirements?

6. An investigation is made to determine the value of capital stock of a holding company and its subsidiaries. What salient points should the public accountant consider?

7. How does a system investigation differ from other special examinations?

Chapter XLIII

THE AUDITOR'S REPORT—WHAT IT SHOULD COVER

Considering the client's viewpoint—Comments on results of operations—Balance sheet accounts—Application of Funds statement—Importance of knowlege of income tax laws—Exhibits and schedules—Balance sheet grouping—Profit and loss statement—Comparative balance sheets—Percentages and charts.

The Client's Viewpoint Considered. An auditor is not justified in assuming that the management of a company is fully familiar with the entire operating details revealed by the company's accounts, and that therefore it needs no detailed report of operations and financial position. The manager of an industry is generally so engrossed with executive duties that he finds little time to make a careful analysis of the accounts. It is for this reason that he engages the public accountant to audit the affairs of his company.

He expects the auditor to show him how and why the operating results reported in the books are correct. He wants to know the causes for increased costs, the reasons for larger or smaller profits, and just where the company stands financially. He is interested in knowing whether the profits were reinvested in fixed assets or whether they served to increase the company's working capital. And, finally, he is interested in knowing whether the accounting department, which he intrusted with the important function of reflecting truly, in the books, the results of operations and the financial position of the company, is doing its work efficiently.

Results of Operations. The two questions uppermost in the manager's mind at the end of the fiscal period are: How much profit has the company made? and, How were the profits made? The auditor should therefore

begin his report with the subject of greatest interest to the management, namely, the Results of Operations.

Under this caption he should indicate clearly the factors that led to enhanced profits; this can best be done by comparing the current year's operations with those of the prior year. If sales have increased, the auditor should show how much of the increase was due to larger volume and how much to higher prices obtained for the company's product.

The percentages of costs, gross profits, selling and administrative expenses, net profits from operations, interest, and surplus net profits to sales should all be clearly indicated and the changes reflected in detail in whatever subsidiary exhibits are deemed necessary. The text of the report should not be burdened with these details, but should outline in summary form the various changes that have occurred, accompanied by interpretive comments.

Balance Sheet Accounts. The nature of the balance sheet accounts should be briefly discussed with reference to their composition and the methods employed for their verification. The manager is naturally interested in knowing that the assets and liabilities have all been properly accounted for and that they have been correctly valued for balance sheet purposes.

Application of Funds Statement. An application of funds statement is of great value in indicating the sources from which funds were provided and their disposition. In the statement one may readily see whether the profits and other funds were utilized to increase the working capital or whether they were used for making additions to capital assets. The growth or decrease in working capital as compared to any prior date is also revealed. Without a knowledge of the amount of working capital available for future operations, no intelligent planning can be done.

Federal Income Tax Laws. The Federal Income Tax laws are open to so many interpretations and are sometimes so vague that their application to a given situation is often beset with numerous troublesome difficulties. The auditor must make a thorough study of these laws. Without full knowledge he cannot hope to interpret correctly the accounts of any business organization. The liability for the tax should ordinarily appear in the books, and the auditor must know that the liability has been correctly set up. Because of the complexity of Federal Income Tax legislation, the auditor should indicate clearly, in the text of his report, how the liability was ascertained; the company's manager is not supposed to be a tax expert.

Exhibits and Schedules

Balance Sheet Grouping. The exhibits, or schedules, in an auditor's report are as important as the text. The balance sheet indicates the financial position of a concern and the accumulated results of operation. It should be logically grouped, preferably in the order of current realization and liquidation. The management is not primarily interested in the fixed assets and liabilities. These are more or less unchanged by current conditions. But there is a decided value in knowing what assets are readily convertible into cash, what immediate liabilities must be paid, and how much is then available to provide for current expansion.

Current Asset Group. The group of accounts entitled "Current Assets" should represent only assets that are being constantly converted into cash. If we include thereunder, Cash, Notes Receivable, Accounts Receivable, and Inventories we are observing the idea of convertibility fully. Cash is used to pay liabilities which were probably largely incurred to provide inventories; inventories are converted into accounts receivable, and

these in turn are converted into cash. There is an uninterrupted process of conversion.

Prepaid Expense. Following the current assets, the prepaid expenses should be presented, since they are very closely related to inventories, representing outlays benefiting the operations of the subsequent period.

Investment. If the company under audit has invested its surplus funds in stocks or bonds of other companies, or in mortgages or real estate not used in the conduct of the business, these investments may be properly shown in the balance sheet in a group just preceding the fixed asset group.

Fixed Assets Group. The more or less fixed assets should appear next in the balance sheet. These accounts indicate the character of an industry's permanency just as the current assets and liabilities indicate its immediate strength.

Deferred Asset Group. The deferred charges should come last, since these in reality are not assets at all. Their value on the balance sheet is dependent upon the preceding groups of assets which establish the permanency of an organization. It is this very basis of permanency, insuring the continuation of operations, which gives value to the deferred items that are to be charged against future operations.

Liabilities. On the liability side of the balance sheet there should appear the current liabilities which also include the accrued accounts, followed by the fixed liabilities.

Net Worth. After all the assets and liabilities have been included on the balance sheet, the remainder, which is in reality the most important group of accounts, represents the net worth of the company or business. It is essential that the accounts indicating net worth be in one group and that the group total stand out clearly in one amount which, when added to the liabilities, will

balance the total assets. Net worth is not a liability. It represents the capital contributed and the accumulated results from operations. It must therefore be the excess of assets over liabilities, and it indicates the real financial strength or power of an organization.

It shows what the investors or the stockholders have accomplished by the use of their capital, and the present value of their contributions. It indicates the amount available as rewards for the risk of investment (dividends or profits) and the amount which ought to be retained in the business as a protection to their capital. Net Worth is such a distinct account that it should always be expressed on the balance sheet in this form.

The English balance sheet construction on the credit side suffers particularly because it fails in this essential, beginning as it does with capital stock and ending with the surplus, thus separating the two accounts which establish not only the net worth of the business but the value of the proprietary interests.

Profit and Loss Statement. The second exhibit in an auditor's report should be the profit and loss statement for the period reviewed. This should indicate:

Gross sales.
Deductions from sales.
Net sales.
Component elements of cost of sales and the total thereof.
Gross profit from operations.
Selling and administrative expenses.
Net profit from operations.
Additions for nonoperating income.
Deductions for nonoperating expenses.
Total net profits to be carried to surplus.

Unless the percentages to sales of these various operating factors and results have been indicated in the report, they should be shown in the profit and loss statement.

Schedules. Whenever necessary, the profit and loss statement should be supplemented by schedules of details of the cost of sales and the selling and administration

expenses. Wherever possible, the subsidiary exhibit for the cost of sales should be augmented by a comparison with prior year or years, so as to indicate clearly changes in unit costs or, if unit costs cannot be shown, changes in the various operating costs.

It is only through comparisons of this kind that changes in operations can be interpreted and traced intelligently. It may not always be possible for the auditor to offer the proper suggestions to remedy weaknesses revealed through such comparisons, but if he has shown where the defects are and what they are, he has given the management all the clues necessary for a thorough investigation. The changes in costs and expenses should, of course, be reflected by and agree with the comments in his report.

Comparative Balance Sheets. There should also be a comparison of balance sheets (in summary form). Through this comparison the changes in working capital indicated in the application of funds statement of the report will be substantiated, and in general the increase or decrease in financial strength will be revealed.

Percentages and Charts. Public accountants are coming to use, more and more, either percentages or charts to indicate the comparisons between operating factors or the relations existing between income and expense. Charts may be used advantageously when comparing results and operations over a long period of time, or in analyzing these in detail by months or shorter periods during a year. For example, monthly sales could be conveniently charted with monthly selling expenses, and production with production costs.

Such charts might in some instances appeal more strongly than a schedule prepared on a percentage basis, although the latter would reveal the same thing. The whole matter is really one of psychology. A practical business man may prefer percentages, the imaginative

mind prefers a picture or a chart. In making use of these, the auditor should be guided largely by the type of executive to whom he is reporting. No one, however, will deny that an audit unaccompanied by either is inadequate and unsatisfactory.

Ratios. Significant ratios in both the balance sheet and the profit and loss statement should be disclosed and discussed. The current ratios should be compared with those of previous periods. Significant ratios are the following:

1. Current Assets to Current Liabilities.
2. Current Assets to Fixed Assets.
3. Net Quick Assets to Net Worth.
4. Cash to Bank Loans.
5. Accounts Receivable to Accounts Payable.
6. Inventories to Current Assets.
7. Debt to Net Worth.
8. Returned Goods to Sales.
9. Cost of Sales to Net Sales.
10. Administration and Selling Expenses to Gross Profit.
11. Selling Expenses to Net Sales.
12. Average Inventories to Cost of Sales.
13. Average Accounts Receivable to Charge Sales.
14. Cost of Sales to Fixed Investment.
15. Working Capital to Sales and Profits.

Test Yourself on Essential Points

1. How should the client's viewpoint be brought out in an audit report?

2. The following excerpt was found in an auditor's report: The petty cash fund was counted and found to be short $0.31. Would you have mentioned the difference?

3. Point out clearly whether you think every audit should contain a reconciliation of the surplus account and a statement of application of funds received and applied, giving your reasons therefor.

4. Outline the grouping you would make of the balance sheet items.

5. What classification should be made of the items of income and expense in a profit and loss statement?

6. What are the advantages of comparative statements and percentages and charts in an audit report?

Chapter XLIV

WORKING PAPERS OF AN AUDIT

Arrangement of working papers—Engagement blank—Time and expense reports—Courtesy and diplomacy of auditor—Working facilities—Schedules in reconciliation with statements—Copious notes on important matters—Preparation of the report—Eliminating nonessential information—Future of profession.

THE WORKING PAPERS

Arrangement of Working Papers. The proper disposition and arrangement of the auditor's working papers are matters which have engaged the minds of public accountants for some time. The working papers must be preserved intact and should be so arranged and indexed that any section of them can be made accessible. The small audit offers no difficulties and the following procedure is recommended:

1. Arrange all working sheets according to the accounts with which they deal.
2. Group all the working papers according to the arrangement and order of the accounts as they appear in the balance sheet and profit and loss statement or in the trial balance. Thus the papers covering the cash count and cash in bank would come first in the file. These would be followed by the schedules and papers referring to notes receivable, etc., through the balance sheet accounts. Under the profit and loss accounts the arrangement would provide first for the general schedules and second for the subsidiary schedules. For example, the cost of sales account section would first cover the general schedules, but under each general schedule should be found the information contained in the auditor's subsidiary statements or exhibits relating to the cost of sales.
3. Index all the papers on a sheet or sheets placed on top or in front of the entire set of working papers. The index should be arranged according to the accounts as indicated above, and the working papers should be numbered consecutively. The index should indicate the kind of information contained in each paper.
4. Every working paper or sheet should be initialed by the accountant who prepared it, so that responsibility for all

the work may be properly allocated. A summary of the work of each accountant might be conveniently placed below the index. This will be of aid in making assignments when the same accounts are again audited.

5. The papers, if not too voluminous, should all be fastened together, or placed in a folder or pouch, and filed away in alphabetical order. At the same time the file clerk should prepare a card indicating the date when the audit was started and when it was completed. This card may be placed in a tickler file (arranged by dates) and will serve to inform the auditor when the audit will come up again, thus aiding him in making the proper assignments to the members of his staff. If the card also indicates the senior in charge of the engagement and his assistants, it will be possible to assign the same force to the next audit.

The working papers on some engagements are so voluminous that they cannot be handled in a regular file. Whenever this is true, the papers should be placed in large cardboard boxes, arranged according to indexes, the latter to be placed in the regular files. The papers may well be arranged in logical groups with a separate index for each group. Index tabs should be used to indicate the various groups in the box, and the group prefix should be shown on each working paper so as to prevent misfiling.

Conduct of an Audit

Engagement Blank. After an engagement has been obtained by the auditor, he should prepare an engagement memorandum containing the following information:

1. Name of client.
2. Client's address.
3. Client's telephone number.
4. Work arranged for by Mr......... with Mr......... (of the client's office).
5. Report to be addressed to Mr......... (title).
6. Account to be charged to.........
7. Nature of business.
8. Nature of audit or examination.
9. When to start.

10. Estimate of time required.
11. Staff requirements.
12. Rates: Senior in charge.
    Juniors.
    Firm members.
13. Report expected..........(date).

The senior to take charge of an engagement should know of the work about a week before it is to start, so that he may get together any working papers (if the accounts were previously audited) and so that he may provide his assistants. He should bear with him a letter of introduction to the proper official in the client's office, and should impress upon his assistants that any matters to be taken up with the client are to be referred to him.

Time and Expense Reports. The auditor in charge of an engagement should provide himself with time reports on which to report the time of himself and assistants. These reports should indicate not only the hours devoted to the work each day, but the nature of the work as well. If the engagement is out of the city, he must also take with him a sufficient number of expense reports.

Courtesy and Diplomacy of Auditor. The auditor should at all times be polite and deferential. He should introduce his assistants properly and should request introductions for himself and assistants to the various officials and accountants with whom he and his staff will have relations. Diplomacy and tact are necessary to establish the proper attitude in the minds of the bookkeepers or accountants whose work is being audited. It is always wise to make the client's employes feel that their assistance is appreciated and that they know their business.

If there is something radically wrong with the system of accounting, the client himself rather than his office force should be informed thereof. The auditor should ask only such questions as are absolutely necessary. He should learn to dig in and to determine things for himself.

He should never jump at conclusions, but reserve his judgments until he has investigated every phase of a situation thoroughly. He must not get into that frame of mind whereby he thinks every error the work of a "crook" or an incompetent. He should be lenient, patient, and constructive in whatever advice he may offer.

Proper Place for Work. It is important that the auditor and his staff have a proper place for work, preferably in a room separated from the general office. This provided, the auditor should next familiarize himself and staff with the books of account, and immediately distribute the work. This will require the exercise of considerable judgment, for work should be divided according to the various special abilities of the assistants.

Making the Assignment. Some of the accountants may be adepts at cost and manufacturing problems; others may have a special knack for inventory verifications. Some may be expert in analysis and in the examination of vouchers; others may be especially rapid and accurate in verifying footings or checking postings. The auditor should, of course, give thought to these things even before he starts an audit, so that as little time as possible will be consumed in making the assignments.

Schedules Reconciled with Statements. All schedules prepared by the auditor and his assistants should agree in amounts with the figures he uses in his report and statements. Any differences between the accounts per books and the amounts indicated in the auditor's report should be reconciled and explained in the working papers. Before leaving the client's office, all the papers must be in order and no questions left unanswered. It is very embarrassing for an auditor, after he has said good-by, to come back and confess to his client that he has overlooked some matters or desires further information on others.

Copious Notes on Important Matters. During the course

of an audit, the senior in charge should not neglect to make copious, clear notes on any matters which deserve further scrutiny or which should receive mention in the report. If these notes are clear and all the working papers in order, it will be a fairly easy task to write the report and to prepare the exhibits.

Whenever possible, the report and the exhibits should be prepared at the client's office. It is often difficult to convince a client that some work must be done after the auditor leaves the engagement, and consequently he may object to passing the auditor's bill when the charge is in excess of the time actually put in at his office.

Preparation of the Report. The report and statements should always be prepared in rough form by the senior in charge of the work. He is familiar with the entire situation and is more competent to emphasize the essentials than a member of the auditing firm. A firm member should, of course, pass on the final form of the report and should advise with reference to diction. Many good seniors have resigned their positions because of unjust criticisms and rebukes from firm members having certain hobbies or pet phraseologies. The general policies of a firm with reference to report construction should assuredly be followed, but not to the point of excluding all individuality on the part of the senior.

Eliminating Nonessential Information. The report should be filled with essentials, and the client should not be told a great many things that he knew possibly years before the auditor began to practice. The client should receive credit for possessing a fair degree of intelligence, and his time should not be consumed with a host of elementary explanations that imply an ignorance of his own business. Again, if a client has engaged an auditor to investigate only a certain phase of his business, it is absurd to foist on him a report which discusses in addition many things on which no information is desired. There is no

need to be presumptious nor to endeavor to impress the client with the vast wisdom of the auditor.

The two most important things for any auditor to learn, whether he be a senior accountant or the member of a firm, is modesty and the conviction that no man has a patent on knowledge. If these two qualities are coupled with intelligence and ability, the high and dignified profession of public accounting will speedily receive wider recognition and bring honor to its votaries.

The Future of the Profession. It is highly encouraging to members of the profession that solid progress is being made throughout the United States in legislation looking toward the development and the elevation of public accounting. All the states now have Certified Public Accountants laws, and although some of these are inadequate, pressure from without will in time raise all to a uniform standard. The great work of the American Institute of Accountants and the American Society of Certified Public Accountants along this line cannot be too strongly commended. Many states have already adopted the Institute examinations, and it is hoped that more will follow. These developments will, we hope and believe, very soon drive the charlatan from the profession and make it impossible for anyone to practice who does not possess a recognized certificate or who is not employed by a firm or individual possessing such a certificate. It is as foolhardy to permit an incompetent to audit books and give advice to business men as it is to employ a "quack" to heal our physical ills.

The leading universities and many good correspondence schools are also doing a great deal of commendable work in preparing men for the profession. It is to be hoped that the various national associations of accountants will aid these schools in the establishment of adequate curricula by supplying them with proper advice regarding tests and instruction. The schools themselves

can aid by offering better remuneration for accountancy instruction. The government too is emphasizing the importance of good accounting and is giving more and more recognition to the public accountant's services. These and many other facts and tendencies lead us to believe that those who are capable and willing to meet fully the demands of public accountancy will find opportunity for the development and application of their talents and energies in a profession which can be confidently expected to wield a profound influence over every phase of the commerce and government of the world.

Chapter XLV

MODEL AUDIT REPORT

Division of report—Text of report—Actual audit report illustrated.

Divisions of Report. An auditor's report is ordinarily composed of three main divisions:

1. Text of Report or Comments.
2. Certificate.
3. Financial Statements.

Text of Report. The text of the report is usually composed of the following:

Introduction or Presentation.
Comments on Results of Operations.
Comments on Balance-Sheet Items.
Comments on Changes in Financial Position during the Period.
General Comments on the Audit.
Conclusion.

The report may be supplemented by, or there may be included as part of, the text, the auditor's certificate certifying as to the financial position of the concern audited and to the operating results. This certificate may be qualified or unqualified, depending entirely upon the auditor's findings. Very often the client wishes to publish his audited balance sheet; he rarely publishes an audit report. In that case, it is customary for the auditor to subscribe his certificate on the balance sheet itself.

The text section of the report should contain a very clear and specific explanation of the results from operation, followed by a discussion of the balance-sheet accounts as these appear in the auditor's balance-sheet exhibit. To this may be added a paragraph outlining the scope of the audit, followed, if necessary, by comments on the client's system of accounts with recommendations and suggestions as to possible improvements therein. The following will probably illustrate clearly the essentials of a good audit report:

AUDIT REPORT

of

J O H N S O N   B R O S .   A N D   C O M P A N Y

for the

Y E A R   E N D E D

D E C E M B E R   3 1 ,   1 9 2 4

BROWN, SMITH & COMPANY
Certified Public Accountants
Chicago, Illinois

BROWN, SMITH & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
1464 Commerce Building, Chicago

February 15, 1925

Johnson Bros. & Company
Chicago, Illinois

Gentlemen:

We have audited the books of account and records of your company for the year ended December 31, 1924, and submit herewith the following exhibits showing the results of operations for the year and the financial condition at December 31, 1924:

BALANCE SHEET AT DECEMBER 31, 1924.EXHIBIT I

STATEMENT OF INCOME, PROFIT, AND LOSS FOR THE YEAR ENDED DECEMBER 31, 1924..................EXHIBIT II

STATEMENT OF COST OF SALES FOR THE YEAR ENDED DECEMBER 31, 1924..EXHIBIT III

COMPARATIVE BALANCE SHEETS AT DECEMBER 31, 1923 and DECEMBER 31, 1924 ....EXHIBIT IV

COMPARATIVE STATEMENT OF COST OF SALES FOR THE TWO YEARS 1923 and 1924 ....EXHIBIT V

COMPARATIVE STATEMENT OF INCOME, PROFIT, AND LOSS FOR THE TWO YEARS 1923 and 1924...........EXHIBIT VI

STATEMENT OF APPLICATION OF FUNDS FOR THE YEAR ENDED DECEMBER 31, 1924 ....EXHIBIT VII

ANALYSIS OF SURPLUS ACCOUNT FOR THE YEAR 1924 ....EXHIBIT VIII

I—COMMENTS ON RESULTS OF OPERATIONS

The following is a comparison of operations, in summary form, for the years 1923 and 1924:

	Year 1923	Year 1924	Increase
Net Sales	$802,256.47	$945,313.60	$143,057.13
Deduct—Cost of Sales	578,393.50	684,062.75	105,669.25

Ratio to Net Sales	72.10%	72.36%	-
Gross Profit	$223,862.97	$261,250.85	$ 37,387.88
Ratio to Net Sales	27.90%	27.64%	-
Deduct—Operating Expense	110,957.07	102,384.36	(Decrease) 8,572.71
Net Operating Profit	$112,905.90	$158,866.49	$ 45,960.59
Ratio to Net Sales	14.07%	16.80%	-
Add—Nonoperating Income	8,842.39	10,258.48	1,416.09
	$121,748.29	$169,124.97	$ 47,376.68
Deduct: Interest Expense		1,931.97	1,931.97
	$121,748.29	$167,193.00	$ 45,444.71
Ratio to Net Sales	15.17%	17.68%	-

A number of important trends are revealed from an inspection of the above comparison of operations for the years 1923 and 1924.

INCREASE IN SALES AND COST OF SALES—

Although Sales increased 17.83 per cent, the Cost of Sales increased 18.27 per cent. There is nothing alarming in this situation because, as will be explained later, freight on sales was largely deducted from 1924 sales and not so in 1923, and, because the larger productive factors that were under your direct control indicate cost decreases. By referring to Exhibit V (Comparative Statement of Cost of Sales) you will note that the Direct Shop Labor decreased by $17,047.82 and the materials used decreased by $14,873.39.

The big increase in costs was in the item of Outside Erecting Labor ($39,816.51), due probably to less-effective supervision over this class of labor, and to somewhat higher labor rates combined with a considerable labor turnover. Manufacturing overhead items for 1924, with the exception of depreciation, show a total increase of $25,572.57 over 1923. Indirect labor contributed $6,719.32 to the total increase.

We have already recommended to your management that a close study of this expense factor be made, with the idea of possibly introducing a number of mechanical devices to reduce the amount of indirect labor. There was also a noticeable increase ($7,960.94) in repairs and maintenance of machinery and buildings. This increase we do not believe is entirely real because an inspection of the charges seemed to indicate that many of them were replacements rather than repairs. Your policy in this respect is, of course, conservative and is therefore quite commendable. However, if carried too far, such a policy will eventually interfere with the depreciation factor, and will result in extensive adjustments to plant account and depreciation reserves later on.

In past years, your charges for depreciation have been somewhat too heavy, and our recommendations that these charges be scaled down have been accepted.

DECREASE IN OPERATING EXPENSE—

The decrease of $8,572.71 in Operating Expense is deserving of some comment, because it represents the difference between a large decrease of $49,981.49 in Selling Expenses and a large increase of $41,408.78 in Administrative Expenses. However, these changes are again not real nor need they lead to any misgivings on the part of your management.

The decrease in Selling Expense is almost entirely accounted for by a decrease of $29,920.09 in Freight on Sales, and by a decrease of $17,339.80 in Automobile Expense. The decrease in the freight item is due to the fact that during the year 1924 the freight on outgoing work was largely deducted from sales direct, so that the net sales figure was correspondingly reduced. This fact also amends the statement formerly made in this report as to the percentage increase of net sales. Had some $30,000 for freight been deducted from sales in 1923 to arrive at net sales for that year, the sales increase of 1924 over 1923 would have been 22.41 per cent instead of 17.83 per cent as indicated by Exhibit VI. Thus, the true facts show that sales have increased by a very good ratio, and that costs have not increased in proportion (18.27 per cent).

The decrease in Automobile Expense ($17,339.80) was entirely due to the fact that your company gave up the

practice, in 1924, of maintaining and repairing the cars owned by the officers even though these cars were used to a considerable extent in promoting sales.

As the amounts expended for personal use and for company use could not be accurately determined, it was deemed best to exclude all automobile expense arising from the use of privately owned cars. At the same time, however, the expense remains inherently in the Profit and Loss Account for 1924, because of salary adjustments to cover this charge and to meet other considerations.

The increase of $41,408.78 in administrative expenses is almost entirely accounted for by an increase of $33,500.00 in Officers Salaries and of $7,910.39 in Bad Debts. Prior to 1924, the officers drew only low nominal salaries, which in no way measured the value of their services to the business. It was for this reason that the company, during 1923 and previous years, paid for officers automobile expenses, as previously commented on. In 1924, each of the three controlling officers' salaries were set at $12,000 a year (total $36,000), and the Secretary's salary was fixed at $6,500; the latter's salary was included by us under "Officers Salaries" in 1924, but was not so included in the 1923 statement. In 1923 the Secretary's salary was merged with "Clerical Salaries" upon the request of your management.

The increase of $7,910.39 in Bad Debts charged off is due entirely to a business policy. Merchandise to the extent of $9,388.00 (the amount charged off in 1924), was furnished to certain officers of a large corporation which had done an extremely large volume of profitable business with your company.

Your management was under the impression that the customer corporation was to be charged, and so made its charge. It developed, however, that the corporation was not liable, and since the materials shipped were used up in an unprofitable venture on the part of the individual officers of the corporation, it was deemed good policy, because of continued and future profitable business from the corporation, to cancel the charge. In reality this charge to "Bad Debts" account should have been made to Miscellaneous Selling Expense.

OVERHEAD DUE TO IDLE CAPACITY

During the year 1924, your plant worked at about 60 per cent of normal capacity, and yet you absorbed into costs the entire factory overhead. Assuming that the amount of indirect labor and all overhead not arising directly from your investment in plant and machinery were necessary for actual production, your cost of sales is, nevertheless, too high because of the plant and equipment overhead applicable to idle capacity. We refer particularly to the items of Insurance, Taxes and Depreciation, amounting in total to $41,364.36. In reality your production should have been burdened with only 60 per cent of these items, or $24,818.62, and the balance ($16,545.74) should have been charged as Unearned Burden or as loss due to idle capacity.

Your final net profits under your plan of costing would, of course, not be affected, but you would have a better idea of your actual operating profits on the actual production. In other words, your gross profits would have appeared at approximately $277,796.59, and your net operating profits at approximately $175,412.23, the difference of $16,545.74 in either case being then accounted for as a nonoperating expense.

If your plant were equipped with a scientific cost system, you would absorb into production and into inventory values, only that factory overhead which is created through the actual use of plant and machinery, as indicated by a rate based upon normal operations, and your inventories would not then include any value increment for idle plant capacity. During some years, especially during periods of growing finished inventories these points may well merit your attention, because if inventories then would include idle capacity increments you would be denying yourself the privilege of their deductibility as business losses through the unearned burden account in your Federal tax return. Your present method of accounting, however, makes all your expenditures deductible for tax purposes, but does not reflect your true manufacturing profits and does not provide a safeguard against finished or process inventory valuation, when these inventories are very large, and are growing from year to year during periods of subnormal production, because in your inventories you include an overhead charge based upon the ratio of all actual overhead expenditures of the year to direct labor.

II—COMMENTS ON BALANCE SHEET

The items in the balance sheet are, in general, self-explanatory, but there are a few upon which we desire to comment specifically.

CUSTOMERS' ACCOUNTS

Customers' accounts are apparently in excellent condition. Before our audit was completed practically all open accounts as at December 31, 1924, had been paid. This liquidity of your accounts receivable, combined with the large amount of cash and U. S. Government bonds, leads us again to the suggestion that you reduce the amount of cash and securities to a sum which will represent your actual cash needs.

During the entire year of 1924, your cash account has not been below $100,000.00, and when decreased to about that amount, the decrease was occasioned by the payment of dividends.

AVERAGE WORKING CAPITAL

The average working capital during the year was in excess of $500,000.00, and certainly that amount is not needed to finance a gross volume of $945,000.00, or to meet an annual expense schedule of about $770,000.00, quite equally spread during all the months of the year. This is especially true in the face of cash collections on customers accounts in excess of $900,000.00, and the knowledge that some of the expenses referred to do not represent cash outlays. An average cash balance of about $75,000.00, in our opinion, would be more than ample to take care of your needs, and would permit you to distribute any present cash surplus and your Liberty bonds in dividends.

RATIO OF CURRENT ASSETS TO CURRENT LIABILITIES

Your ratio of Current Assets to Current Liabilities at December 31, 1924, was in excess of 19 to 1, and with cash and securities reduced to $75,000.00, would still have been in excess of 10 to 1. Your prompt collections, assuming a continuation of business as heretofore, would make it possible to maintain that ratio quite consistently throughout the year, even though you continued your policy of paying a 100 per cent cash dividend on your capital stock of $100,000.00.

During the year, the account with H. F. Johnson,

your president, was reduced from $165,000.00 to $90,000.00.

FEDERAL TAX CLAIM

You will note that the amount of the Federal Tax Claim has been increased from $2,149.92 to $6,318.19. This claim had previously been reduced to $2,149.92 by the application of a part of it as a claim for credit against 1920 taxes, but by reason of a technical ruling of the collector, this credit could not be applied. The unpaid tax for 1921 was paid in 1925, and the full amount of your claim, $6,318.19, will be refunded with interest. We are advised that this claim has been certified to at Washington, and the amount should be refunded to you in the near future.

ADDITIONS TO FIXED PROPERTIES

The additions to fixed properties include the $21,776.65 expended for new roofing. As this addition was made late in the year 1924, no depreciation was taken on it. Inasmuch as the new roof will not last as long as the buildings and will sometime require replacement, we believe this improvement should be carried in a separate account and depreciated over its expected life. The additions to machinery and equipment comprise a Lowe crane, power hammer, engines, and other items of a minor character.

ACCRUED TAXES

The liability for accrued real estate and personal property taxes payable in 1925, was based upon the amount paid in 1924.

RESERVE FOR LAND VALUE ADJUSTMENT

The $500 received from the Power district for the right to run electrical conduit through your property has been credited to the account called Reserve for Land-Value Adjustment, set up by us two years ago. There is no method by which to measure the damage or loss in value to your property by reason of these easement rights, and, therefore, this money as well as that previously received for the sewer tunnel rights is carried in the reserve account.

III—SCOPE OF AUDIT

We examined all purchase vouchers for the year and the additions to fixed properties. The pay-roll records

were verified from the canceled pay-roll checks and compared with the general ledger accounts for the months of January, April, August, October and December.

Cash receipts and disbursements were verified and footings tested. The banks certified to us directly the amount of cash on deposit with them at December 31, 1924, and we reconciled these certificates with the ledger accounts.

Accounts Receivable were aged and uncollectible accounts written off. The detail of these accounts agreed with the control account.

Inventories were taken by the management and priced at cost or market, whichever was lower.

We verified the extensions and footings and made an exhaustive test of the pricing from purchase invoices and available market reports.

Depreciation on properties was computed in accordance with previously accepted rates.

IV—CERTIFICATE

We hereby CERTIFY that in our opinion the balance sheet and profit and loss statement attached hereto correctly set forth the financial condition of the company at December 31, 1924, and the result of operation for the year 1924, respectively.

Yours very truly,

Brown, Smith & Company

BROWN, SMITH & COMPANY
Certified Public Accountants

JOHNSON BROS. AND COMPANY

EXHIBIT I

BALANCE SHEET

DECEMBER 31, 1924

ASSETS				
CURRENT ASSETS:-				
Cash in Banks			$216,245.12	
U.S. Government Bonds:-				
Third Liberty Loan 4¼%	$ 37,000.00			
Fourth Liberty Loan 4¼%	35,000.00	$ 72,000.00		
Accrued Interest on Liberty Bonds		768.54	72,768.54	
Accounts Receivable:-				
Customers		$156,706.30		
H. F. Johnson		90,000.00		
Officers and Employes		4,541.57		
Federal Tax Claim Allowed		6,318.19	257,566.06	
Inventories:-				
Raw Materials		$ 10,866.15		
Work in Process		19,649.11	30,515.26	$ 577,094.98
PREPAID EXPENSE:-				
Unexpired Insurance			55.42	
Auto Licenses for 1925			312.00	
Capital Stock and Franchise Tax			671.50	1,038.92
FIXED ASSETS:- (At Cost)	Cost	Reserve for Depreciation	Net Value	
Land - Water St.	$ 58,753.51	$	$ 58,753.51	
Land - Cragen District	74,067.57		74,067.57	
Buildings - Water St. (Salvage Value)	2,116.54		2,116.54	
" - Cragen - Plant	247,881.42	52,792.66	195,088.76	
" - " - Office	52,725.19	3,046.64	49,678.55	
New Roof on Plant Buildings - Cragen 1924	21,776.65		21,776.65	
Machinery and Equipment	398,006.41	197,450.41	200,556.00	
Trucks	4,555.58	1,139.71	3,415.87	
Office Furniture and Fixtures	12,124.39	6,664.02	5,460.37	
Lunch Room Equipment	708.12	438.23	269.89	
	$872,715.38	$261,531.67	$611,183.71	611,183.71
INTANGIBLE ASSETS:-				
Patents			$ 1,000.00	
Goodwill			200,000.00	201,000.00
TOTAL ASSETS				$1,390,317.61
LIABILITIES				
CURRENT LIABILITIES:-				
Accounts Payable - Trade			$ 6,454.35	
Accrued Liabilities:-				
Wages and Salaries		$ 4,408.83		
Property Taxes		14,213.71		
Compensation Insurance		4,955.37	23,577.91	$ 30,032.26
RESERVE FOR LAND VALUE ADJUSTMENTS:				
Compensation for Easement Rights to Sanitary District of Chicago for Sewer and Electrical Conduit under property				11,666.92
NET WORTH				
CAPITAL STOCK Authorized and Issued			$100,000.00	
SURPLUS (Exhibit VIII)			$1,248,618.43	1,348,618.43
TOTAL LIABILITIES AND NET WORTH				$1,390,317.61

JOHNSON BROS. AND COMPANY

EXHIBIT II

INCOME, PROFIT AND LOSS STATEMENT

FOR THE YEAR ENDING DECEMBER 31, 1924

GROSS SALES	$948,674.84		
Less: Allowances on Sales	3,361.24		
NET SALES		$945,313.60	
Deduct: COST OF SALES (EXHIBIT III)		684,062.75	
GROSS PROFIT ON SALES			$261,250.85
Deduct: SELLING EXPENSES:-			
Salesmen's Salaries and Commissions		$ 3,177.33	
Freight on Sales		7,387.13	
Traveling Expense		1,587.39	
Advertising		948.75	
Entertaining		2,177.14	
Miscellaneous		82.50	
Maintenance of Automobiles		415.02	15,775.26
			$245,475.59
Deduct: ADMINISTRATIVE EXPENSES:-			
Executive Salaries		$ 42,500.00	
Clerical Salaries		17,749.05	
Capital Stock Taxes		1,343.00	
Stationery and Supplies		1,207.46	
Telephone, Telegrams and Postage		1,135.69	
Legal, Auditing and Appraising		2,892.63	
Electrical Repairs and Replacements		21.72	
Maintenance - Office Bldg. - Cragen District		272.87	
" - Bldg. - Water Street		101.74	
Maintenance - Lunch Room		2.40	
Fuel - Office Heating		1,387.20	
Insurance Vault Contents		9.34	
Donations		2,355.00	
Dues and Subscription Trade Ass'ns.		1,134.00	
Freight and Express - Misc.		15.27	
Pensions		1,767.00	
Traveling Expenses		264.70	
Maintenance - Office Furn. & Fixtures		100.83	
Bad Accounts		9,388.00	
Miscellaneous		1,102.35	
Depreciation:			
Bldgs. Cragen District	$ 784.48		
Lunch Room Equipment	141.40		
Office Furniture & Fixtures	920.23	1,846.11	
Collection Fees		12.73	86,609.10
NET OPERATING PROFIT			$158,866.49
Add: NON-OPERATING INCOME:-			
Interest - Notes Receivable	$ 589.29		
" - Bank Balances	2,262.30		
" - U.S. Liberty Loan Bonds	3,060.00	$ 5,911.59	
Rentals		2,322.00	
Discount on Purchases		1,551.08	
Bad Debts Recovered		75.00	
Net Gain on Sale of Capital Assets		393.81	
Miscellaneous		5.00	10,258.48
			$169,124.97
Deduct: NON-OPERATING EXPENSE:-			
Interest Expense		$ 1,931.97	1,931.97
NET PROFIT FOR YEAR ENDED December 31, 1924 (Carried to Exhibit VIII)			$167,193.00

JOHNSON BROS. AND COMPANY

STATEMENT OF COST OF SALES

FOR THE YEAR ENDED DECEMBER 31, 1924.

EXHIBIT III

INVENTORY WORK IN PROCESS Jan. 1, 1924			$ 55,663.83
Inventory Raw Material Jan. 1, 1924		$ 9,667.10	
Purchases	$285,082.47		
Freight on Material Purchased	677.48	285,759.95	
		$295,427.05	
Less: Inventory Raw Materials Dec. 31, 1924		10,866.15	
COST OF MATERIALS USED			284,560.90
DIRECT LABOR:			
Direct Labor - Shop		$122,527.51	
" " - Outside Erection		91,769.29	214,296.80
MANUFACTURING EXPENSES:-			
Indirect Labor		$ 51,396.37	
Insurance		9,209.79	
Taxes		14,525.71	
Water		394.75	
Coal and Coal Freight		2,174.21	
Fuel Oil and Fuel Oil Freight		17,678.97	
Gasoline and Oil		1,088.83	
Electric Current Purchased		3,868.90	
Gas		3,082.31	
Electrical Repairs		329.53	
Maint. of Bldgs. - Cragen Plant		4,386.41	
Maint. of Mach. and Equipment		11,020.81	
Small Tools Replacement		4,768.44	
Patterns		1,251.47	
Shop Expense - Miscellaneous		2,516.63	
Drafting Room Expense		80.30	
Freight and Express - Miscellaneous		136.20	
Maintenance of Trucks		418.06	
Truck Chauffeurs' Salaries		3,383.78	
Depreciation:-			
Buildings - Cragen Plant	$ 3,718.22		
Machinery and Equipment	12,799.06		
Motor Trucks	1,111.58	17,628.86	149,340.33
			$703,861.86
INVENTORY WORK IN PROCESS Dec. 31, 1924			19,649.11
TOTAL COST OF MANUFACTURING			$684,212.75
Less: Amount received for fire loss			150.00
NET COST OF MANUFACTURING (carried to Exhibit II)			$684,062.75

JOHNSON BROS. AND COMPANY

EXHIBIT IV

COMPARATIVE BALANCE SHEET

DECEMBER 31, 1923 AND DECEMBER 31, 1924

ASSETS	December 31 1923	December 31, 1924	Increase or * Decrease
CURRENT ASSETS:-			
Cash in Banks	$104,161.18	$216,245.12	$112,083.94
U.S. Government Bonds	72,000.00	72,000.00	
Accrued Interest	768.54	768.54	
Accounts Receivable - Customers	138,499.51	156,706.30	18,206.79
Accounts Receivable - Personal	171,545.24	94,541.57	* 77,003.67
Federal Tax Claim Allowed	2,149.92	6,318.19	4,168.27
Inventories	65,330.93	30,515.26	* 34,815.67
TOTAL CURRENT ASSETS	$554,455.32	$577,094.98	$ 22,639.66
PREPAID EXPENSES	$ 277.90	$ 1,038.92	$ 761.02
FIXED ASSETS:- (After Depreciation)			
Land - Water Street	$ 58,753.51	$ 58,753.51	
Land - Cragen District	74,067.57	74,067.57	
Buildings - Water St. (Salvage Value)	2,116.54	2,116.54	
Buildings - Cragen Plant	198,806.98	195,088.76	$* 3,718.22
Buildings - " Office	49,610.61	49,678.55	67.94
New Roof on Plant Bldgs. Cragen 1924		21,776.65	21,776.65
Machinery and Equipment	192,472.78	200,556.00	8,083.22
" " " for sale	11,360.48		* 11,360.48
Autos & Trucks	6,758.93	3,415.87	* 3,343.06
Office Furniture and Fixtures	4,049.22	4,927.58	878.36
Lunch Room Equipment	409.04	269.89	* 139.15
TOTAL FIXED ASSETS	$598,405.66	$610,650.92	$ 12,245.26
INTANGIBLE ASSETS:-			
Goodwill	$200,000.00	$200,000.00	
Patents	1,000.00	1,000.00	
TOTAL INTANGIBLE ASSETS	$201,000.00	$201,000.00	
TOTAL ASSETS	$1,354,138.88	$1,389,784.82	$ 35,645.94
LIABILITIES			
CURRENT LIABILITIES:-			
Accounts Payable - Trade	$ 10,872.84	$ 6,454.35	$* 4,418.49
Accrued Payroll	2,624.16	4,408.83	1,784.67
" Taxes	10,877.31	14,213.71	3,336.40
" Insurance	1,690.08	4,955.37	3,265.29
TOTAL LIABILITIES	$ 26,064.39	$ 30,032.26	$ 3,967.87
RESERVE - Land Value Adjustment	$ 11,166.92	$ 11,666.92	$ 500.00
NET WORTH			
CAPITAL STOCK	$ 100,000.00	$ 100,000.00	
SURPLUS	1,216,907.57	1,248,085.64	$ 31,178.07
TOTAL NET WORTH	$1,316,907.57	$1,348,085.64	$ 31,178.07
TOTAL LIABILITIES AND NET WORTH	$1,354,138.88	$1,389,784.82	$ 35,645.94

JOHNSON BROS. AND COMPANY

EXHIBIT V

COMPARATIVE STATEMENT OF COST OF SALES

FOR THE TWO YEARS ENDED DECEMBER 31, 1924.

	1923	1924	Increase or * Decrease
INVENTORY - WORK IN PROCESS Jan. 1st	$ 17,152.88	$ 55,663.83	$ 38,510.95
COST OF MATERIAL PUT IN PROCESS	299,434.29	284,560.90	* 14,873.39
DIRECT LABOR:-			
Direct Shop Labor	139,575.33	122,527.51	* 17,047.82
Outside Erecting Labor	51,952.78	91.769.29	39,816.51
MANUFACTURING EXPENSES:-			
Indirect Labor	44,677.05	51,396.37	6,719.32
Power, Light and Heat	25,503.24	28,287.97	2,784.73
Small Tools Expense	2,642.41	4,768.44	2,126.03
Shop and Drafting Room Expense	2,210.42	2,733.13	522.71
Maintenance of Machinery	6,659.86	11,350.34	4,690.48
" of Buildings	1,115.95	4,386.41	3,270.46
" of Trucks	3,482.92	3,801.84	318.92
Insurance	7,754.51	9,209.79	1,455.28
Taxes	10,841.07	14,525.71	3,684.64
Depreciation - Factory and Equipment	19,435.01	17,628.86	* 1,806.15
Patterns	1,619.61	1,251.47	* 368.14
	$634,057.33	$703,861.86	$69,804.53
Deduct: INVENTORY WORK IN PROCESS Dec. 31st	55,663.83	19,649.11	*36,014.72
TOTAL COST OF MANUFACTURING	$578,393.50	$684,212.75	$105,819.25
Deduct: Amount received for fire loss		150.00	150.00
COST OF SALES	$578,393.50	$684,062.75	$105,669.25

JOHNSON BROS. AND COMPANY

EXHIBIT VI

COMPARATIVE STATEMENT OF INCOME, PROFIT AND LOSS

FOR THE TWO YEARS ENDED DECEMBER 31, 1924.

	1923	1924	Increase or *Decrease
SALES	$802,256.47	$945,313.60	$143,057.13
Deduct: COST OF SALES	578,393.50	684,062.75	105,669.25
GROSS PROFIT ON SALES	$223,862.97	$261,250.85	$ 37,387.88
Deduct: SELLING EXPENSES:-			
Salesmen's Salaries and Commissions	$ 4,766.67	$ 3,177.33	$*1,589.34
Traveling and Entertaining	3,905.11	3,764.53	* 140.58
Freight on Sales	37,307.22	7,387.13	* 29,920.09
Advertising	1,821.08	948.75	* 872.33
Miscellaneous	201.85	82.50	* 119.35
Automobile Expense	17,754.82	415.02	* 17,339.80
Total Selling Expenses	$ 65,756.75	$ 15,775.26	$*49,981.49
Deduct: ADMINISTRATIVE EXPENSES:-			
Officers Salaries	$ 9,000.00	$ 42,500.00	$ 33,500.00
Clerical Salaries	21,401.42	17,749.06	* 3,652.36
Auditing, Appraising & Legal	1,514.52	2,892.63	1,378.11
Dues and Subscriptions	766.00	1,134.00	368.00
Capital Stock Taxes	1,334.00	1,343.00	9.00
Stationery and Office Supplies	1,582.12	1,207.46	* 374.66
Telephone, Telegraph and Postage	1,327.70	1,135.69	* 192.01
Collection Fees etc.	46.05	12.73	* 33.32
Traveling Expenses	348.85	264.70	* 84.15
Maintenance of Office Equipment	660.06	1,760.90	1,100.84
Depreciation Office Equipment	1,917.98	1,846.11	* 71.87
Pensions to former employees	1,775.50	1,767.00	* 8.50
Contributions	1,150.46	2,355.00	1,204.54
Bad Debts	1,477.61	9,388.00	7,910.39
Maintenance - Building Water St.		101.74	101.74
Miscellaneous	898.05	1,151.08	253.03
Total Administrative Expenses	$ 45,200.32	$ 86,609.10	$ 41,408.78
NET OPERATING PROFIT	$112,905.90	$158,866.49	$ 45,960.59
Add: NON-OPERATING INCOME:-			
Rentals and Claims	$ 995.00	$ 2,322.00	$ 1,327.00
Interest Earned	4,697.20	5,911.59	1,214.39
Discount on Purchases	1,759.77	1,551.08	* 208.69
Gains on Sale of Capital Assets	1,030.97	393.81	* 637.16
Miscellaneous	359.45	80.00	* 279.45
	$ 8,842.39	$ 10,258.48	$ 1,416.09
	$121,748.29	$169,124.97	$ 47,376.68
Deduct: NON-OPERATING EXPENSES:-			
Interest Expense		$ 1,931.97	$ 1,931.97
NET PROFIT	$121,748.29	$167,193.00	$ 45,444.71

JOHNSON BROS. AND COMPANY

EXHIBIT VII

STATEMENT OF APPLICATION OF FUNDS

FOR THE YEAR ENDED DECEMBER 31, 1924.

FUNDS PROVIDED:-		
Net Profit for the year		$167,193.00
Depreciation Currently provided for		19,474.97
Proceeds from Sale of Capital Assets	$ 2,767.55	
Less: Gain included in Net Profit above	393.81	2,373.74
Proceeds from Sale of Automobiles		6,421.43
Machinery scrapped (see surplus adjustment)		10,278.42
Compensation for Conduit Rights (Sanitary District)		500.00
Income Tax Claim Increased (net)		6,100.24
Surplus Arising From Prepaid Capital Stock and Franchise Tax		671.50
		$213,013.30
FUNDS APPLIED:-		
Dividends Paid	$100,000.00	
Income Tax 1923	8,835.29	
Unpaid portion of 1918 income tax	20,336.56	
1923 Real and Personal Property Taxes in excess of accrual	3,336.40	
Machinery Scrapped (charged to Surplus)	10,278.42	
Additions to Machinery	21,407.21	
" " Cragen District Office Bldg.	852.42	
" " Office Furniture and Fixtures	2,274.71	
" " Lunch Room	2.25	
" " Trucks	4,480.58	
New Roof	21,776.65	$193,580.49
Increase in Working Capital (as shown below)		19,432.81
		$213,013.30

STATEMENT OF WORKING CAPITAL

	Dec. 31, 1923	Dec. 31, 1924	Increase or * Decrease
Current Assets and Prepaid Expenses:-			
Cash	$104,161.18	$216,245.12	$112,083.94
U.S. Government Bonds	72,000.00	72,000.00	
Accrued Interest	768.54	768.54	
Accounts Receivable	310,044.75	251,247.87	* 58,796.88
Federal Tax Claim	2,149.92	6,318.19	4,168.27
Inventories	65,330.95	30,515.28	* 34,815.67
Unexpired Insurance	105.90	55.42	* 50.48
Prepaid Auto Licenses	172.00	312.00	140.00
Prepaid Capital Stock and Franchise Tax		671.50	671.50
	$554,733.22	$578,133.90	$ 23,400.68
Deduct: Current Liabilities:-			
Accounts Payable - Trade	$ 10,872.84	$ 6,454.35	* $ 4,418.49
Accrued Payroll	2,624.16	4,408.83	1,784.67
Accrued Taxes	10,877.31	14,213.71	3,336.40
Accrued Compensation Insurance	1,690.08	4,955.37	3,265.29
	$ 26,064.39	$ 30,032.26	$ 3,967.87
	$528,668.83	$548,101.64	$ 19,432.81

JOHNSON BROS. AND COMPANY

EXHIBIT VIII

ANALYSIS OF SURPLUS

FOR YEAR ENDED DECEMBER 31, 1924

SURPLUS BALANCE, JANUARY 1, 1924		$1,216,907.57
SURPLUS ADDITIONS:		
Adjustment for Federal Tax Claim allowed to Increase to Amount Refundable	$ 6,100.24	
Prepaid Capital Stock and Franchise Tax not recorded at Jan. 1, 1924	671.50	
Excessive Depreciation on Furniture and Fixtures	532.79	7,304.53
		$1,224,212.10
SURPLUS DEDUCTIONS:		
Unpaid portion of 1918 Income Tax	$ 20,336.56	
1923 Income Tax Paid	8,835.29	
Amount paid for 1923 real estate and personal property taxes in excess of amount accrued on books at Dec. 31, 1925	3,336.40	
Correction of 1923 Net Profit reporting incomes of $900.00 from sale of roll binders to C.M. & St. P. R.R. instead of a loss of $400.00 on this transaction	1,300.00	
Balance of Machinery and Equipment discarded in 1920 and no longer on hand	8,978.42	42,786.67
TOTAL SURPLUS ADJUSTED		$1,181,425.43
Deduct:		
DIVIDEND PAID:		
Dividend No. 89	$ 60,000.00	
Dividend No. 90	40,000.00	100,000.00
		$1,081,425.43
Add:		
NET PROFITS FOR YEAR 1924 (from Exhibit II)		167,193.00
SURPLUS, December 31, 1924 (to Exhibit I)		$1,248,618.43

ILLUSTRATIVE AUDIT WORKING PAPERS

In the following reproduction of the audit working papers and the formal report derived from them, which has just been presented, an effort has been made to assist the reader to understand more clearly the practical accomplishment in an audit, and the technical process in building up the working papers. An actual case has been selected, the accounts and the relationships between the figures being taken from the original papers.

These papers are typical of the average situation which forms a large part of the auditor's duties. The practicing accountant will not, however, find them free from defects as compared with the ideal.

If an audit were made for the first time, there would appear certain working papers covering the history and the organization of the company, the creation of goodwill (if any) or sinking fund provisions, etc. Such papers will not be found in this audit, since a previous audit has been made by the same practicing accountants. Generally the working papers of the previous audits are used in all subsequent audits, and are sometimes taken by the auditor to the client's office where he does his work so that any necessary reference may be made.

The following working papers are not as complete as they originally appeared, since all the financial statements and text of the report as originally prepared in handwriting by the auditor have been omitted. The model audit report previously illustrated has been typed from these original papers.

After an audit is completed the working papers should be carefully indexed so that reference to them may be readily made by any member on the public accountant's staff other than the one who made the audit. The careful student will be guided into a detailed study of the case, and it is hoped he will find many helpful points which practical experience gives to the auditor.

J O H N S O N   B R O S.   A N D   C O M P A N Y

AUDIT WORKING PAPERS

AS OF DECEMBER 31, 1924.

Senior Fred Joslyn

Junior Geo Moore

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